

PRACTICE EXAM 7: ELEVATOR INDUSTRY APTITUDE TEST (EIAT) SIMULATION (100 QUESTIONS)

This original practice exam contains 100 questions covering basic arithmetic, reading comprehension, mechanical comprehension, and general tool knowledge. Choose the single best answer for each question. A score of 70% or higher matches NEIEP's published minimum passing grade; NEIEP does not publicly specify an official question count or time limit.

1. A mechanic has 18 bolts and receives 27 more. How many bolts are available?

- A. 45
- B. 35
- C. 44
- D. 55

2. A 96-inch rail is cut into 8 equal pieces. How long is each piece?

- A. 8
- B. 10
- C. 14
- D. 12

3. What is 35% of 240?

- A. 72
- B. 84
- C. 80
- D. 96

4. A worker earns \$22 per hour for 7 hours. What is the gross pay?

- A. 144
- B. 164
- C. 154
- D. 176

5. What is $\frac{3}{4}$ of 68?

- A. 48
- B. 51
- C. 52
- D. 54

6. A rectangular platform is 9 feet long and 6 feet wide. What is its area?

- A. 30
- B. 45
- C. 54
- D. 60

7. A delivery contains 144 washers packed equally into 12 boxes. How many are in each box?

- A. 10
- B. 14
- C. 16
- D. 12

8. Convert 7 feet to inches.

- A. 84
- B. 72
- C. 78
- D. 96

9. A tank holds 160 gallons and is $\frac{3}{5}$ full. How many gallons are in it?

- A. 64
- B. 80
- C. 100
- D. 96

10. What is the average of 18, 24, 30, and 36?

- A. 27
- B. 24
- C. 26
- D. 28

11. A cable costs \$2.75 per foot. What is the cost of 16 feet?

- A. 41
- B. 42
- C. 44
- D. 46

12. Evaluate $48 - 19 + 7$.

- A. 22
- B. 36
- C. 29
- D. 60

13. A 5-foot board is shortened by 18 inches. How many inches remain?

- A. 42
- B. 32
- C. 40
- D. 48

14. What is 7.2 multiplied by 5?

- A. 12
- B. 36
- C. 35
- D. 37

15. A crew completes 9 units each hour. How many units are completed in 6 hours?

- A. 45
- B. 56
- C. 63
- D. 54

16. Simplify $\frac{84}{126}$ to lowest terms. What is the numerator?

- A. 3
- B. 4
- C. 2
- D. 6

17. A square has a perimeter of 44 inches. What is one side length?

- A. 9
- B. 11
- C. 10
- D. 12

18. A quantity increases from 80 to 100. What is the percent increase?

- A. 20
- B. 24
- C. 25
- D. 30

19. If 4 identical brackets weigh 18 pounds, what do 10 brackets weigh?

- A. 36
- B. 40
- C. 54
- D. 45

20. What is $2.5 + 0.75 + 1.25$?

- A. 4.5
- B. 3.5
- C. 4
- D. 5

21. A 20-foot cable is cut into pieces 2.5 feet long. How many complete pieces result?

- A. 8
- B. 6
- C. 7
- D. 10

22. Evaluate $6 + 3 \times 8$ using standard order of operations.

- A. 48
- B. 72
- C. 96
- D. 30

23. A ladder reaches 15 feet up a wall while its base is 8 feet from the wall. What is its length?

- A. 16
- B. 18
- C. 17
- D. 23

24. A \$250 tool set is discounted by 12%. What is the sale price?

- A. 218
- B. 220
- C. 222
- D. 238

25. A machine cycles once every 15 seconds. How many cycles occur in 5 minutes?

- A. 20
- B. 15
- C. 25
- D. 30

26. Read the passage: Before starting the lift, Dana inspected the sling for cuts and verified its rated capacity. She then cleared loose material from the path. When the load began to tilt, she stopped the lift and repositioned the attachment points before continuing.

Why did Dana stop the lift?

- A. The sling was missing
- B. The load began to tilt
- C. The path was blocked
- D. The load was too light

27. Read the passage: Before starting the lift, Dana inspected the sling for cuts and verified its rated capacity. She then cleared loose material from the path. When the load began to tilt, she stopped the lift and repositioned the attachment points before continuing.

What did Dana inspect first?

- A. The building schedule
- B. The motor temperature
- C. The delivery paperwork
- D. The sling condition and capacity

28. Read the passage: Before starting the lift, Dana inspected the sling for cuts and verified its rated capacity. She then cleared loose material from the path. When the load began to tilt, she stopped the lift and repositioned the attachment points before continuing.

What happened before the attachment points were repositioned?

- A. The sling was discarded
- B. The load was delivered
- C. The lift was stopped
- D. The path was reopened

29. Read the passage: Before starting the lift, Dana inspected the sling for cuts and verified its rated capacity. She then cleared loose material from the path. When the load began to tilt, she stopped the lift and repositioned the attachment points before continuing.

Which action best shows hazard control?

- A. Increasing the lifting speed
- B. Clearing loose material from the path
- C. Ignoring a slight tilt
- D. Removing the capacity tag

30. Read the passage: Before starting the lift, Dana inspected the sling for cuts and verified its rated capacity. She then cleared loose material from the path. When the load began to tilt, she stopped the lift and repositioned the attachment points before continuing.

What is the passage mainly about?

- A. Ordering replacement slings
- B. Calculating employee wages
- C. Preparing and correcting a lift safely
- D. Scheduling building deliveries

31. Read the passage: The maintenance notice states that the west elevator will be unavailable from 7:00 a.m. until noon on Tuesday. During that period, deliveries must use the freight elevator at the south dock. Emergency personnel may obtain override access from building security.

When will the west elevator return to service?

- A. At noon Tuesday
- B. At 7:00 a.m. Tuesday
- C. At noon Monday
- D. At 7:00 p.m. Tuesday

32. Read the passage: The maintenance notice states that the west elevator will be unavailable from 7:00 a.m. until noon on Tuesday. During that period, deliveries must use the freight elevator at the south dock. Emergency personnel may obtain override access from building security.

Where must deliveries go during the outage?

- A. The west lobby stairway
- B. The passenger elevator at the north dock
- C. The service office near security
- D. The freight elevator at the south dock

33. Read the passage: The maintenance notice states that the west elevator will be unavailable from 7:00 a.m. until noon on Tuesday. During that period, deliveries must use the freight elevator at the south dock. Emergency personnel may obtain override access from building security.

Who may obtain override access?

- A. All delivery drivers
- B. Any building visitor
- C. Emergency personnel
- D. Only maintenance vendors

34. Read the passage: The maintenance notice states that the west elevator will be unavailable from 7:00 a.m. until noon on Tuesday. During that period, deliveries must use the freight elevator at the south dock. Emergency personnel may obtain override access from building security.

What is the purpose of the notice?

- A. To advertise a new elevator
- B. To explain access during a temporary outage
- C. To report an employee absence
- D. To request freight pricing

35. Read the passage: The maintenance notice states that the west elevator will be unavailable from 7:00 a.m. until noon on Tuesday. During that period, deliveries must use the freight elevator at the south dock. Emergency personnel may obtain override access from building security.

Which statement is supported?

- A. The outage lasts five hours
- B. All elevators will be unavailable
- C. Deliveries are canceled Tuesday
- D. Security closes at noon

36. Read the passage: Luis received four replacement bearings. Two matched the work order, one had the wrong bore diameter, and one had damaged packaging. He tagged the incorrect bearing for return, quarantined the damaged package, and installed only the two verified parts.

How many bearings were installed?

- A. One
- B. Three
- C. Four
- D. Two

37. Read the passage: Luis received four replacement bearings. Two matched the work order, one had the wrong bore diameter, and one had damaged packaging. He tagged the incorrect bearing for return, quarantined the damaged package, and installed only the two verified parts.

Why was one bearing tagged for return?

- A. Its bore diameter was wrong
- B. Its package was damaged
- C. It matched the order
- D. It had already been installed

38. Read the passage: Luis received four replacement bearings. Two matched the work order, one had the wrong bore diameter, and one had damaged packaging. He tagged the incorrect bearing for return, quarantined the damaged package, and installed only the two verified parts.

What happened to the damaged package?

- A. It was installed
- B. It was returned immediately
- C. It was quarantined
- D. It was mixed with verified parts

39. Read the passage: Luis received four replacement bearings. Two matched the work order, one had the wrong bore diameter, and one had damaged packaging. He tagged the incorrect bearing for return, quarantined the damaged package, and installed only the two verified parts.

What principle guided Luis's decision?

- A. Install every delivered item
- B. Discard all unmatched paperwork
- C. Choose parts by package color
- D. Use only parts verified as suitable

40. Read the passage: Luis received four replacement bearings. Two matched the work order, one had the wrong bore diameter, and one had damaged packaging. He tagged the incorrect bearing for return, quarantined the damaged package, and installed only the two verified parts.

What does quarantined most nearly mean here?

- A. Measured for final installation
- B. Separated from usable stock
- C. Cleaned with solvent
- D. Approved without inspection

41. Read the passage: The supervisor asked the crew to measure the hoistway opening twice before cutting the guardrail. The first readings differed by half an inch. After cleaning debris from the reference edge, both workers obtained the same measurement and recorded it on the drawing.

Why did the crew measure twice?

- A. To confirm accuracy before cutting
- B. To increase the opening size
- C. To avoid recording the result
- D. To replace the guardrail

42. Read the passage: The supervisor asked the crew to measure the hoistway opening twice before cutting the guardrail. The first readings differed by half an inch. After cleaning debris from the reference edge, both workers obtained the same measurement and recorded it on the drawing.

What likely caused the first readings to differ?

- A. A missing drawing
- B. A broken guardrail
- C. Debris on the reference edge
- D. The supervisor's schedule

43. Read the passage: The supervisor asked the crew to measure the hoistway opening twice before cutting the guardrail. The first readings differed by half an inch. After cleaning debris from the reference edge, both workers obtained the same measurement and recorded it on the drawing.

What happened after the edge was cleaned?

- A. The opening became smaller
- B. Both workers obtained the same measurement
- C. The drawing was discarded
- D. A third worker cut immediately

44. Read the passage: The supervisor asked the crew to measure the hoistway opening twice before cutting the guardrail. The first readings differed by half an inch. After cleaning debris from the reference edge, both workers obtained the same measurement and recorded it on the drawing.

When was the value recorded?

- A. Before either measurement
- B. While debris remained
- C. After the guardrail was installed
- D. After the measurements agreed

45. Read the passage: The supervisor asked the crew to measure the hoistway opening twice before cutting the guardrail. The first readings differed by half an inch. After cleaning debris from the reference edge, both workers obtained the same measurement and recorded it on the drawing.

What is the central lesson?

- A. Cut material before inspecting it
- B. Use only one worker for measuring
- C. Verify measurements before irreversible work
- D. Ignore small measurement differences

46. Read the passage: A service log reported intermittent door reopening on the third floor. The technician first checked for objects in the sill, then cleaned the detector lens. After ten test runs without a recurrence, she documented the work but scheduled a follow-up inspection for the next morning.

What symptom was reported?

- A. The doors reopened intermittently on the third floor
- B. The car stopped between floors
- C. The alarm sounded continuously
- D. The lights failed in the lobby

47. Read the passage: A service log reported intermittent door reopening on the third floor. The technician first checked for objects in the sill, then cleaned the detector lens. After ten test runs without a recurrence, she documented the work but scheduled a follow-up inspection for the next morning.

What did the technician check first?

- A. The motor bearings
- B. The door sill for objects
- C. The building schedule
- D. The emergency telephone

48. Read the passage: A service log reported intermittent door reopening on the third floor. The technician first checked for objects in the sill, then cleaned the detector lens. After ten test runs without a recurrence, she documented the work but scheduled a follow-up inspection for the next morning.

What was cleaned?

- A. The hoist rope
- B. The controller cabinet
- C. The elevator floor
- D. The detector lens

49. Read the passage: A service log reported intermittent door reopening on the third floor. The technician first checked for objects in the sill, then cleaned the detector lens. After ten test runs without a recurrence, she documented the work but scheduled a follow-up inspection for the next morning.

Why was a follow-up scheduled?

- A. Ten tests all failed
- B. The elevator was permanently removed
- C. The original problem was intermittent
- D. The technician lacked a service log

50. Read the passage: A service log reported intermittent door reopening on the third floor. The technician first checked for objects in the sill, then cleaned the detector lens. After ten test runs without a recurrence, she documented the work but scheduled a follow-up inspection for the next morning.

Which action completed the immediate visit?

- A. Replacing the entire door
- B. Canceling all future inspections
- C. Leaving without test runs
- D. Documenting the work performed

51. Two meshed gears turn together. If the driving gear turns clockwise, which way does the driven gear turn?

- A. Clockwise
- B. Counterclockwise
- C. It remains stationary
- D. It alternates directions

52. A longer wrench makes a tight bolt easier to turn primarily because it increases what?

- A. Torque for the same applied force
- B. Bolt thread count
- C. Tool weight only
- D. Friction at the handle

53. In an ideal fixed pulley, the main benefit is that it does what?

- A. Changes the direction of the applied force
- B. Cuts the required force in half
- C. Doubles the load weight
- D. Stores energy in the rope

54. If pressure is applied to a confined liquid, how is it transmitted?

- A. Only downward
- B. Only toward the pump
- C. Equally throughout the liquid
- D. Only near the input piston

55. Which change lowers the center of gravity of a loaded cart?

- A. Stacking heavy items on top
- B. Placing the heaviest items near the bottom
- C. Narrowing the wheel spacing
- D. Raising the platform

56. A small gear drives a larger gear. Compared with the small gear, the larger gear generally turns how?

- A. Faster with less torque
- B. At the same speed and torque
- C. More slowly with less torque
- D. More slowly with greater torque

57. Which simple machine is a ramp?

- A. An inclined plane
- B. A wheel and axle
- C. A lever
- D. A pulley

58. When a metal rod is heated uniformly and free to move, what normally happens?

- A. It contracts
- B. Its mass doubles
- C. Its density becomes zero
- D. It expands

59. Which surface usually produces the greatest friction on a sliding block?

- A. A smooth lubricated surface
- B. An air cushion
- C. A rough, dry surface
- D. A polished wet surface

60. A load is balanced on a lever. If the load moves farther from the fulcrum, what must happen to the opposing moment?

- A. It must decrease
- B. It must increase
- C. It becomes zero
- D. It changes direction automatically

61. Why does a wide base make a scaffold more stable?

- A. It removes the scaffold's working weight
- B. It causes gravity to act upward
- C. It provides a larger support area against tipping
- D. It eliminates all movement and vibration

62. In a series electrical circuit, what happens if one component opens the circuit?

- A. Current doubles everywhere
- B. Current stops throughout the circuit
- C. Only voltage disappears at the source
- D. All components receive more current

63. Which condition increases fluid pressure at the bottom of an open tank?

- A. Widening the tank only
- B. Reducing the fluid density
- C. Removing fluid
- D. Increasing the fluid depth

64. What happens to required input force when an ideal machine provides greater mechanical advantage?

- A. The required force decreases
- B. The required force increases
- C. The load mass disappears
- D. The work output exceeds input

65. Which material property describes resistance to scratching or indentation?

- A. Hardness
- B. Ductility
- C. Conductivity
- D. Elasticity

66. If the same force acts on a smaller piston area, what happens to pressure?

- A. Pressure decreases
- B. Pressure increases
- C. Pressure remains unchanged
- D. Pressure becomes negative

67. A belt drive's driven pulley slips. What is the most direct result?

- A. The belt becomes a rigid gear
- B. The driver reverses automatically
- C. The driven pulley turns slower than intended
- D. Torque transmission becomes perfect

68. Which beam condition creates bending?

- A. Equal axial tension only
- B. Uniform temperature with free expansion
- C. No applied force
- D. A transverse load applied between supports

69. Why are roller bearings used between rotating parts?

- A. To reduce friction
- B. To increase sliding contact
- C. To stop all rotation
- D. To make shafts flexible

70. When identical springs are connected in parallel, the combination is generally what?

- A. Softer than one spring
- B. Unable to carry load
- C. Equal to zero stiffness
- D. Stiffer than one spring

71. What is the principal purpose of a counterweight in an elevator system?

- A. To open landing doors
- B. To lubricate guide rails
- C. To offset much of the car and load weight
- D. To power emergency lights

72. Which statement describes inertia?

- A. An object always moves upward
- B. An object resists changes in its motion
- C. A force exists without mass
- D. Energy is created from nothing

73. If a fan's rotational speed increases, its blade tips travel how?

- A. Slower
- B. Faster
- C. At unchanged speed
- D. Only vertically

74. Why does lubrication reduce wear between moving metal surfaces?

- A. It increases direct metal contact
- B. It removes all applied loads
- C. It permanently hardens every metal
- D. It separates surfaces with a low-friction film

75. What does a fuse do when current exceeds its rating for sufficient time?

- A. It raises the supply voltage
- B. It stores excess current
- C. It melts and opens the circuit
- D. It closes a second circuit

76. Which tool is best for tightening a hex-head bolt to a specified torque?

- A. A torque wrench
- B. A slip-joint plier
- C. A claw hammer
- D. A cold chisel

77. Which tool measures an outside diameter most precisely?

- A. An outside micrometer
- B. A framing square
- C. A pry bar
- D. A center punch

78. What is the main use of a center punch?

- A. Cutting external threads
- B. Measuring voltage
- C. Marking a starting point for drilling
- D. Removing insulation

79. Which screwdriver fits a cross-shaped screw recess?

- A. A slotted screwdriver
- B. A Phillips screwdriver
- C. A hex key
- D. A pipe wrench

80. What should be used to protect eyes from flying chips?

- A. Cotton work gloves only
- B. A dustpan
- C. Hearing plugs alone
- D. Safety glasses with side protection

81. Which tool cuts internal screw threads in a drilled hole?

- A. A die
- B. A reamer
- C. A tap
- D. A file card

82. Which tool cuts external threads on a rod?

- A. A tap
- B. A die
- C. A countersink
- D. A feeler gauge

83. What is a feeler gauge used to measure?

- A. Small gaps or clearances
- B. Wire voltage
- C. Pipe pressure
- D. Long floor distances

84. Which tool checks whether a surface is horizontal?

- A. A plumb bob only
- B. A hacksaw
- C. A gear puller
- D. A spirit level

85. What is the safest action before changing a power-tool blade?

- A. Increase the tool speed
- B. Hold the trigger down
- C. Disconnect or isolate the power source
- D. Remove the blade guard permanently

86. Which hammer is commonly used for striking punches and chisels?

- A. A rubber mallet
- B. A sledge used one-handed
- C. A tack hammer
- D. A ball-peen hammer

87. Which tool grips and turns round pipe?

- A. A wood rasp
- B. A pipe wrench
- C. A combination square
- D. A wire stripper

88. What does a wire stripper do?

- A. Removes insulation without cutting the conductor
- B. Measures hydraulic pressure
- C. Cuts keyways in shafts
- D. Checks surface flatness

89. Which tool is best for checking electrical voltage?

- A. A steel ruler
- B. A socket wrench
- C. A pipe cutter
- D. A properly rated multimeter

90. Why should a mushroomed chisel head be dressed or replaced?

- A. It improves cutting accuracy
- B. It makes the chisel magnetic
- C. It can shed dangerous metal fragments
- D. It reduces the tool's length markings

91. Which saw is commonly used to cut metal by hand?

- A. A hacksaw
- B. A coping saw with wood blade
- C. A pruning saw
- D. A keyhole saw

92. What is the purpose of a reamer?

- A. Starting a nail
- B. Finishing a hole accurately to size
- C. Testing insulation
- D. Bending conduit by hand

93. Which tool helps remove a bearing from a shaft?

- A. A framing hammer
- B. A plumb bob
- C. A bearing puller
- D. A paint scraper

94. How should a wrench be selected for a nut?

- A. Use the correct size with full jaw contact
- B. Use the loosest size available
- C. Add oil to the handle
- D. Strike an adjustable wrench repeatedly

95. What is the purpose of a lockout/tagout device during tool service?

- A. Increasing motor speed
- B. Marking finished dimensions
- C. Improving blade sharpness
- D. Preventing unexpected energization

96. Which tool is used to make a straight reference line across metal?

- A. A pipe wrench and mallet
- B. A machinist's square and scribe
- C. A fuse puller and brush
- D. A grease gun and rag

97. What should be done with a cracked hammer handle?

- A. Wrap it loosely with tape
- B. Soak it in oil and continue
- C. Strike more lightly indefinitely
- D. Remove the hammer from service

98. Which socket-drive accessory lets a socket reach a recessed fastener?

- A. An extension bar
- B. A thread pitch gauge
- C. A cold chisel
- D. A surface plate

99. What does a clamp do during cutting or drilling?

- A. Increases supply voltage
- B. Secures the workpiece against movement
- C. Automatically sharpens the bit
- D. Measures the finished diameter

100. Why is a file handle required on a tang-style file?

- A. It changes coarse teeth to fine teeth
- B. It measures filing pressure
- C. It protects the hand from the pointed tang
- D. It makes the file electrically insulated

Practice Exam 7: Answer Key and Explanations

1. A — Adding the two quantities gives $18 + 27 = 45$ bolts. Subtraction would describe using bolts, while multiplication would describe equal groups; neither matches receiving an additional quantity. The correct choice is 45. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given in the question.

2. D — Equal pieces require division. Dividing 96 inches by 8 gives 12 inches for each piece. The other values result from dividing by an incorrect number or estimating instead of using the stated eight equal sections. The correct choice is 12. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit.

3. B — Convert 35 percent to 0.35 and multiply by 240. The result is 84. Using 30 percent produces 72, while the other distractors reflect rounding or applying the percentage to the wrong base. The correct choice is 84. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given.

4. C — Gross pay for a constant hourly rate is hours multiplied by dollars per hour. Thus, 7 times 22 equals 154 dollars. The alternatives come from changing the hours, adding instead of multiplying, or using an incorrect hourly rate. The correct choice is 154. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that.

5. B — Multiply 68 by three and divide by four, or first divide 68 into four equal groups of 17 and take three groups. Either method gives 51. The distractors arise from rounding or using a nearby fraction. The correct choice is 51. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not.

6. C — Rectangle area equals length times width. Multiplying 9 feet by 6 feet gives 54 square feet. Adding the dimensions gives a perimeter-related value, while the other choices reflect incorrect multiplication. The correct choice is 54. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given in the.

7. D — Equal packing means dividing the total by the number of boxes. The calculation 144 divided by 12 gives 12 washers per box. Multiplying or dividing by a nearby number produces the distractors. The correct choice is 12. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given.

8. A — Each foot contains 12 inches, so 7 feet equals 7 times 12, or 84 inches. The alternatives use incorrect conversion factors or add rather than multiply by twelve. The correct choice is 84. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given in the question.

9. D — Three fifths of 160 is found by dividing 160 by five and multiplying the result by three. Thirty-two times three equals 96 gallons. The other answers represent different fractions or premature rounding. The correct choice is 96. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given.

10. A — Add the four values to obtain 108, then divide by four because four measurements were recorded. The arithmetic mean is therefore 27. Choosing 24 or another nearby value fails to include every measurement correctly. The correct choice is 27. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the.

11. C — Multiply the unit price, 2.75 dollars per foot, by 16 feet. The feet cancel as units and the product is 44 dollars. The distractors result from using a rounded price or the wrong cable length. The correct choice is 44. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit.

12. B — Addition and subtraction have equal precedence, so work from left to right. Forty-eight minus nineteen is twenty-nine, and adding seven gives thirty-six. The other choices stop after one step or combine the numbers incorrectly. The correct choice is 36. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the.

13. A — First convert five feet to sixty inches. Subtracting the eighteen-inch removed section leaves forty-two inches. Subtracting before converting or using ten inches per foot leads to the distractors. The correct choice is 42. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given in the question.

14. B — Multiplying 72 by 5 gives 360, and restoring the one decimal place gives 36.0. The alternatives reflect misplaced decimals, rounding, or adding five instead of multiplying. The correct choice is 36. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given in the question.

15. D — At a constant rate, total output equals rate multiplied by time. Nine units per hour for six hours produces fifty-four units. The alternatives use five or seven hours or add the two given numbers. The correct choice is 54. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the.

16. C — The greatest common divisor of 84 and 126 is 42. Dividing both terms by 42 gives $\frac{2}{3}$, so the numerator is 2. Dividing only one term or using a smaller common factor leaves the fraction unreduced. The correct choice is 2. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not.

17. B — A square has four equal sides, so divide the perimeter by four. Forty-four divided by four equals eleven inches. The alternatives result from dividing by another number or subtracting from the perimeter. The correct choice is 11. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given.

18. C — The increase is twenty. Divide that change by the original value, eighty, then multiply by one hundred. Twenty divided by eighty equals 0.25, so the increase is twenty-five percent. The correct choice is 25. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given in the question.

19. D — First find the unit weight: eighteen divided by four equals 4.5 pounds per bracket. Multiplying 4.5 by ten gives forty-five pounds. The other values ignore proportional scaling or use an incorrect unit weight. The correct choice is 45. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions.

20. A — Align decimal places and add the values. Two and one-half plus three-quarters is 3.25; adding 1.25 gives 4.50. The distractors omit a term or mishandle the decimal portions. The correct choice is 4.5. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given in the question.

21. A — The number of equal pieces equals total length divided by piece length. Twenty divided by 2.5 equals eight, with no remainder. The other choices use incorrect divisors or treat the decimal as a whole number. The correct choice is 8. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit.

22. D — Multiplication is performed before addition. Three times eight equals twenty-four; adding six gives thirty. Adding first and then multiplying yields seventy-two, a common order-of-operations mistake. The correct choice is 30. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given in the question.

23. C — The wall and ground form perpendicular legs of a right triangle. Using the Pythagorean theorem gives the square root of 15 squared plus 8 squared, which is the square root of 289, or 17 feet. The correct choice is 17. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit.

24. B — A twelve-percent discount equals thirty dollars because 0.12 times 250 is 30. Subtracting the discount from the original price gives 220 dollars. The alternatives add the discount or calculate the percentage incorrectly. The correct choice is 220. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given.

25. A — Convert five minutes to three hundred seconds, then divide by fifteen seconds per cycle. The quotient is twenty complete cycles. The alternatives fail to convert minutes or use an incorrect cycle duration. The correct choice is 20. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that does not fit the conditions given.

26. B — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is The load began to tilt. The alternatives confuse.

27. D — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is The sling condition and capacity. The alternatives confuse.

28. C — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is The lift was stopped. The alternatives confuse the.

29. B — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Clearing loose material from the path. The alternatives.

30. C — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Preparing and correcting a lift safely. The alternatives.

31. A — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is At noon Tuesday. The alternatives confuse the stated.

32. D — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is The freight elevator at the south dock. The.

33. C — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Emergency personnel. The alternatives confuse the stated relationship.

34. B — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is To explain access during a temporary outage. The.

35. A — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is The outage lasts five hours. The alternatives confuse.

36. D — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Two. The alternatives confuse the stated relationship, use.

37. A — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Its bore diameter was wrong. The alternatives confuse.

38. C — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions

identifies the single best response. The correct choice is It was quarantined. The alternatives confuse the stated.

39. D — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Use only parts verified as suitable. The alternatives.

40. B — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Separated from usable stock. The alternatives confuse the.

41. A — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is To confirm accuracy before cutting. The alternatives confuse.

42. C — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Debris on the reference edge. The alternatives confuse.

43. B — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Both workers obtained the same measurement. The alternatives.

44. D — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is After the measurements agreed. The alternatives confuse the.

45. C — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Verify measurements before irreversible work. The alternatives confuse.

46. A — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is The doors reopened intermittently on the third floor.

47. B — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is The door sill for objects. The alternatives confuse.

48. D — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is The detector lens. The alternatives confuse the stated.

49. C — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is The original problem was intermittent. The alternatives confuse.

50. D — The answer follows directly from the sequence and details stated in the passage. Careful readers should distinguish what the writer explicitly reports from choices that add unsupported events, change the timing, or substitute a different purpose. Using the passage rather than outside assumptions identifies the single best response. The correct choice is Documenting the work performed. The alternatives confuse the.

51. B — Meshed external gears rotate in opposite directions because the teeth push against one another at their point of contact. Therefore a clockwise driving gear produces counterclockwise rotation in the driven gear. Gear size changes speed and torque, but it does not change this direction relationship for one gear pair. The correct choice is Counterclockwise. The alternatives confuse the stated relationship.

52. A — Torque equals applied force multiplied by the perpendicular distance from the pivot. A longer wrench increases that distance, producing more turning effect from the same hand force. It does not alter the bolt's threads, and extra handle friction is not the primary mechanical advantage. The correct choice is Torque for the same applied force. The alternatives confuse the stated relationship.

53. A — A single fixed pulley redirects the force so the operator may pull downward to raise a load. Its ideal mechanical advantage is one, so it does not reduce the force magnitude. Multiple supporting rope segments are required to gain force advantage. The correct choice is Changes the direction of the applied force. The alternatives confuse the stated relationship, use the.

54. C — Pascal's principle states that pressure applied to a confined fluid is transmitted undiminished throughout the fluid and to container walls. That behavior allows hydraulic systems to transfer and multiply force. Pressure does not travel only downward or remain near the input piston. The correct choice is Equally throughout the liquid. The alternatives confuse the stated relationship, use the wrong operation.

55. B — Placing heavy mass lower moves the combined center of gravity closer to the ground, improving resistance to tipping. Raising heavy items or narrowing the support base reduces stability. The relevant issue is mass distribution, not simply the total weight carried. The correct choice is Placing the heaviest items near the bottom. The alternatives confuse the stated relationship, use the wrong.

56. D — When a smaller gear drives a larger gear, the larger gear completes fewer revolutions for each driver revolution. Speed decreases while available torque increases, neglecting losses. This tradeoff follows the gear ratio; equal speed would require equal gear sizes. The correct choice is More slowly with greater torque. The alternatives confuse the stated relationship, use the wrong operation, or identify.

57. A — A ramp is an inclined plane because it spreads the work of raising an object over a longer distance, reducing the required input force. A lever rotates about a fulcrum, a pulley uses a grooved wheel and rope, and a wheel-and-axle is rotational. The correct choice is An inclined plane. The alternatives confuse the stated relationship, use the wrong operation.

58. D — Most metals undergo thermal expansion when heated because increased atomic vibration raises average spacing between atoms. The rod becomes slightly longer while its mass remains essentially unchanged. Cooling generally causes contraction; heating does not eliminate density or double the amount of material. The correct choice is It expands. The alternatives confuse the stated relationship, use the wrong operation, or identify.

59. C — Rough, dry contact generally offers more resistance to sliding than smooth or lubricated contact. Lubricants separate surface irregularities and reduce friction, while an air cushion greatly reduces direct contact. Actual coefficients vary by material, but the stated comparison supports the rough, dry surface. The correct choice is A rough, dry surface. The alternatives confuse the stated relationship, use the wrong.

60. B — Moment equals force times perpendicular distance from the fulcrum. Moving the same load farther away increases its moment, so the opposing moment must also increase to preserve balance. It may increase through more force or greater distance; it cannot remain smaller. The correct choice is It must increase. The alternatives confuse the stated relationship, use the wrong operation, or identify.

61. C — An object tips when the vertical line through its center of gravity moves outside its support base. A wider base provides a larger stability region, allowing more shift before tipping. It does not remove weight, reverse gravity, or eliminate every vibration. The correct choice is It provides a larger support area against tipping. The alternatives confuse the stated relationship, use.

62. B — A series circuit has only one continuous path for current. Opening any component breaks that path, stopping current through every component. Voltage may still exist across the open point, but

current cannot complete the loop, so it neither doubles nor increases elsewhere. The correct choice is Current stops throughout the circuit. The alternatives confuse the stated relationship, use the wrong.

63. D — Hydrostatic pressure depends on fluid density, gravitational acceleration, and vertical depth. Increasing depth increases bottom pressure. Merely widening a tank at the same depth does not change that pressure, while lower density or removing fluid reduces it. The correct choice is Increasing the fluid depth. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or.

64. A — Mechanical advantage expresses how an ideal machine trades force for distance. Greater advantage reduces the input force needed to move a given load, though the input must act through a longer distance. Conservation of energy prevents ideal output work from exceeding input work. The correct choice is The required force decreases. The alternatives confuse the stated relationship, use the wrong.

65. A — Hardness measures resistance to localized deformation such as scratching or indentation. Ductility concerns plastic stretching before fracture, conductivity describes transfer of heat or electricity, and elasticity describes recovery after unloading. These properties may coexist but are not interchangeable. The correct choice is Hardness. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool or principle that.

66. B — Pressure equals force divided by area. Holding force constant while reducing the contact area increases pressure because the same force is concentrated over less surface. A larger area would lower pressure; the sign does not become negative under ordinary compression. The correct choice is Pressure increases. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool.

67. C — Slip means the belt moves relative to the pulley surface instead of maintaining full frictional contact. The driven pulley therefore receives less effective motion and may turn slower than the intended ratio. Slip also wastes energy as heat rather than improving torque transfer. The correct choice is The driven pulley turns slower than intended. The alternatives confuse the stated relationship.

68. D — A transverse load acts across the beam's length and creates internal shear and bending moment. Pure axial tension primarily stretches the beam, while unrestricted uniform heating allows expansion without bending. With no load or constraint, there is no bending action to resist. The correct choice is A transverse load applied between supports. The alternatives confuse the stated relationship, use the.

69. A — Rolling elements replace much of the sliding motion between surfaces with rolling motion, which generally has lower friction. Bearings support and guide rotating shafts while limiting wear and heat. They do not make shafts flexible or intentionally prevent rotation. The correct choice is To reduce friction. The alternatives confuse the stated relationship, use the wrong operation, or identify a tool.

70. D — Parallel springs share the applied load while undergoing the same displacement. Their stiffness values add, so the combination requires more force for a given deflection than one spring alone. Series springs behave oppositely and produce a softer combined system. The correct choice is Stiffer than one spring. The alternatives confuse the stated relationship, use the wrong operation, or identify a.

71. C — A counterweight balances the elevator car plus a designed portion of its rated load, reducing the traction machine's required effort and improving efficiency. It is not a door operator, lubrication device, or electrical supply. Proper balance also supports traction and controlled operation. The correct choice is To offset much of the car and load weight. The alternatives confuse the stated.

72. B — Inertia is the tendency of matter to resist a change in its state of rest or uniform motion. Greater mass generally means greater inertia. A net force is required to accelerate an object; inertia does not specify upward travel or create energy. The correct choice is An object resists changes in its motion. The alternatives confuse the stated relationship, use.

73. B — Tangential speed equals angular speed multiplied by distance from the axis. At a fixed blade radius, increasing rotational speed increases tip speed. The tip follows a circular path rather than moving only vertically, and its speed cannot remain unchanged when angular speed rises. The correct choice is Faster. The alternatives confuse the stated relationship, use the wrong operation, or identify.

74. D — Lubricant forms a film that reduces direct asperity contact between moving metal surfaces, lowering friction, heat, and adhesive wear. It does not remove the external load or universally harden metal. Proper lubricant type and cleanliness are important because contamination can increase wear. The correct choice is It separates surfaces with a low-friction film. The alternatives confuse the stated relationship, use.

75. C — A fuse contains a calibrated element that heats and melts when excessive current persists, opening the circuit and limiting damage. It is a one-time protective device and must be replaced after operation. It neither stores current nor increases voltage. The correct choice is It melts and opens the circuit. The alternatives confuse the stated relationship, use the wrong operation, or.

76. A — A torque wrench is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

77. A — An outside micrometer is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

78. C — Marking a starting point for drilling is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

79. B — A Phillips screwdriver is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

80. D — Safety glasses with side protection is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

81. C — A tap is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

82. B — A die is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

83. A — Small gaps or clearances is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

84. D — A spirit level is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

85. C — Disconnect or isolate the power source is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

86. D — A ball-peen hammer is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

87. B — A pipe wrench is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

88. A — Removes insulation without cutting the conductor is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

89. D — A properly rated multimeter is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

90. C — It can shed dangerous metal fragments is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

91. A — A hacksaw is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

92. B — Finishing a hole accurately to size is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

93. C — A bearing puller is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

94. A — Use the correct size with full jaw contact is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

95. D — Preventing unexpected energization is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

96. B — A machinist's square and scribe is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

97. D — Remove the hammer from service is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

98. A — An extension bar is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

99. B — Secures the workpiece against movement is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.

100. C — It protects the hand from the pointed tang is the tool or practice that directly matches the task described. Safe tool selection depends on using equipment for its designed purpose, inspecting it before use, and controlling the workpiece or energy source. The other choices perform different jobs or introduce avoidable hazards rather than completing the stated task correctly.