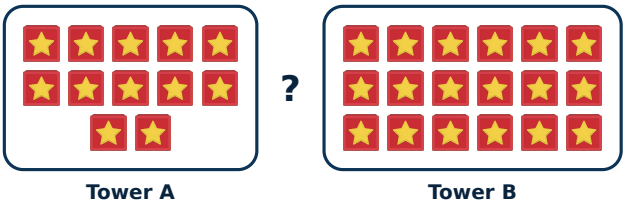
Define Engineering Problems

Grade 3 Science Worksheet

Name _____ Date _____

Circle the answer.

1. A block tower may use no more than 15 blocks. Tower A uses 12 blocks and Tower B uses 18. Which tower follows the limit?

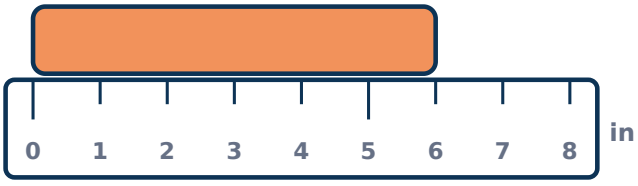


neither tower Tower B both towers Tower A

2. A lunchbox must keep food cold for 4 hours and fit a cubby 30 cm wide. Which describes the whole problem?

fit in a 30 cm cubby
be the coldest lunchbox ever made
keep food cold 4 hours and fit a 30 cm cubby
keep food cold for 4 hours

3. A pencil holder must be no wider than 6 inches. This one is 6 inches wide. Does it meet the size limit?



no, because it must be smaller than 6 inches
yes, because it is not wider than 6 inches
yes, because it holds many pencils
no, because it is exactly 6 inches wide

4. A birdhouse hole must be no more than 4 cm across, so squirrels cannot get in. This hole is 6 cm across. Does it meet the rule?



yes, because bigger holes let more birds in
yes, because 6 cm is close to 4 cm
no, because 6 cm is larger than the 4 cm limit
no, because the hole is too small

5. A kite challenge allows one sheet of paper and one stick. A student's kite uses two sheets and three sticks, and it flies steadily. Does it meet the requirements?
   yes, because extra sticks make it stronger
   no, because it flies too low
   yes, because it flies steadily
   no, because it uses more materials than allowed

6. A rule says a ramp may rise no more than 1 inch for every 12 inches of length. A ramp rises 1 inch for every 6 inches. Does it meet the rule?
   yes, because it rises only 1 inch at a time
   no, because it is too flat
   no, because it is steeper than the rule allows
   yes, because it still reaches the door

7. A ramp must send a marble at least 50 cm. In a test, the marble went 65 cm. Does the ramp meet the goal?
   yes, because the ramp is tall
   no, because 65 cm is too far
   no, because it must be exactly 50 cm
   yes, because 65 cm is farther than 50 cm

8. A paper airplane flies 2 meters, but the goal is 5 meters. What should the student do next?
   change the goal to 2 meters
   throw it the same way ten more times
   redesign the plane and test it again
   stop testing, since 2 meters is close

9. A parachute must make a toy fall slowly. Which test result shows the parachute works?
   the toy falls slower with the parachute than without it
   the parachute is the biggest in the class
   the toy falls at the same speed either way
   the toy lands upside down

10. A rain gutter must carry water away from a doorway. Which observation shows it is not working?
    water pools at the doorway during rain
    the gutter is 10 feet long
    water flows away from the doorway
    the gutter is made of metal

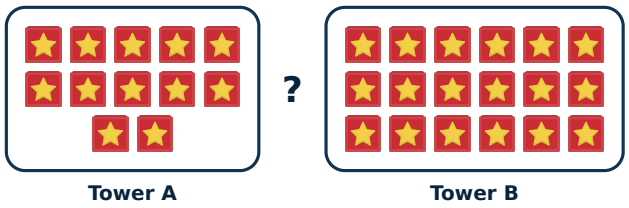
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Define Engineering Problems

Answer Key - Grade 3 Science Worksheet

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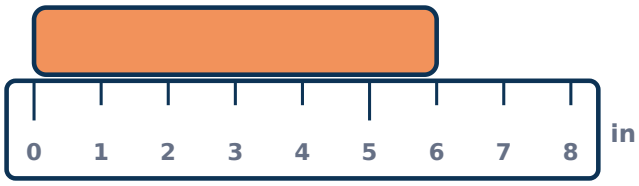


neither tower Tower B both towers **Tower A**

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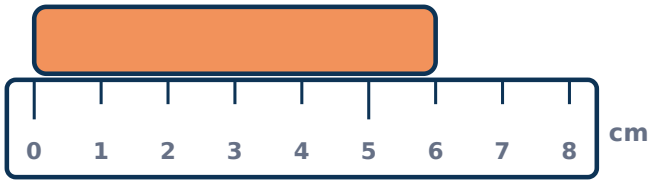
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