Compare Engineering Solutions

Grade 4 Science Worksheet

Name _____ Date _____

Circle the answer.

1. Two bridges both held 20 washers. Bridge 1 used 10 sticks. Bridge 2 used 6 sticks. What is the best comparison?

   the bridges cannot be compared

   Bridge 2 did the same job with fewer materials

   Bridge 1 is stronger because it used more sticks

   Bridge 2 held more washers

2. Turbine A made 8 units of electricity but broke in strong wind. Turbine B made 6 units and did not break. The goal is to work all winter. Which tradeoff should the team accept?

   both turbines, because both make electricity

   more electricity from A even though it breaks

   no turbine at all

   less electricity from B to get a turbine that lasts

3. Cooler A (foil lining) kept ice 4 hours. Cooler B (foam lining) kept ice 7 hours. Both cost $5. What does the comparison show?

   both linings kept ice the same time

   foil kept ice longer for the same cost

   foam kept ice longer for the same cost

   foam cost more than foil

4. Turbine designs: A makes 9 units in strong wind, 1 in light wind. B makes 5 units in both. A town has light wind most days. Which is better?

   neither, because both need wind

   Turbine B, because it works well in light wind

   Turbine A, because the wind is always strong

   Turbine A, because 9 is the most

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Answer Key - Grade 4 Science Worksheet

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