LearnZillion

Identify perfect squares and perfect cubes by building and observing models, Practice Set A

Name:

Date:

1. Which of the following numbers are perfect squares. Explain your reasoning.

   5, 9, 36 and 41

2. Which of the following numbers are perfect cubes? Explain your reasoning.

   8, 12, 27 and 64

3. Identify each of the following numbers as a perfect square, a perfect cube or neither. Explain your reasoning.

   27, 81, 196, 243, 175, 125, 121, 200, 225, 1000

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Answer Key

1. Which of the following numbers could you make squares out of? Explain your reasoning.

    a. 5, 9, 36 and 41.

    You can make a 3 x 3 square out of 9, and a 6 x 6 square out of 36.

2. Which of the following numbers could you make cubes out of? Explain your reasoning.

    a. 8, 12, 27 and 64.

    You can make a 2 x 2 x 2 cube out of 8.

    You can make a 3 x 3 x 3 cube out of 27.

3. Identify each of the following numbers as a perfect square, a perfect cube or neither. Explain your reasoning.

    27, 81, 196, 243, 175, 125, 121, 200, 225, 1000

    81, 196, 121 and 225 are all perfect squares because you can make squares out of them.

    27, 243, 125 and 1,000 are all perfect cubes because you can make cubes out of them.

    175 and 200 are neither because you can't make cubes or squares out of them.