Lesson 13 Practice Problems

1. ○ Sketch a cylinder.

   ○ Label its radius 3 and its height 10.

   ○ Shade in one of its bases.

2. At a farm, animals are fed bales of hay and buckets of grain. Each bale of hay is in the shape a rectangular prism. The base has side lengths 2 feet and 3 feet, and the height is 5 feet. Each bucket of grain is a cylinder with a diameter of 3 feet. The height of the bucket is 5 feet, the same as the height of the bale.

   a. Which is larger in area, the rectangular base of the bale or the circular base of the bucket? Explain how you know.

   b. Which is larger in volume, the bale or the bucket? Explain how you know.

3. Three cylinders have a height of 8 cm. Cylinder 1 has a radius of 1 cm. Cylinder 2 has a radius of 2 cm. Cylinder 3 has a radius of 3 cm. Find the volume of each cylinder.
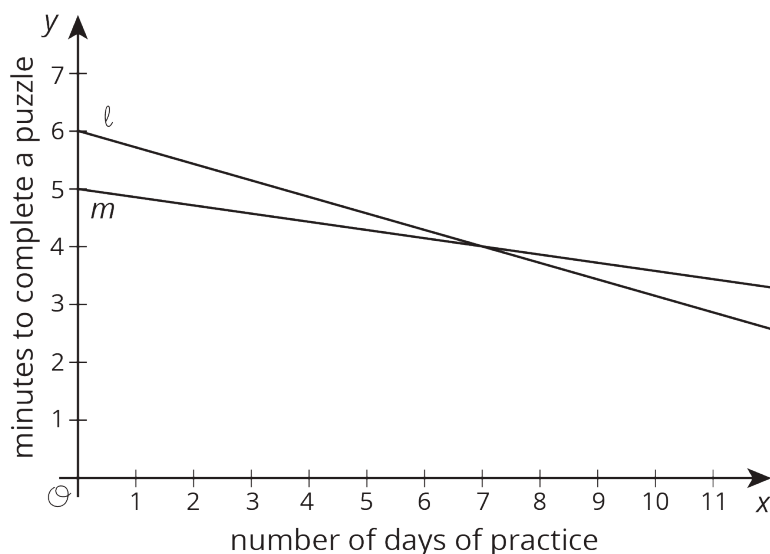
4. A one-quart container of tomato soup is shaped like a rectangular prism. A soup bowl shaped like a hemisphere can hold 8 oz of liquid. How many bowls will the soup container fill? Recall that 1 quart is equivalent to 32 fluid ounces (oz).

   (From Unit 5, Lesson 12.)

5. Match each set of information about a circle with the area of that circle.

    A. Circle A has a radius of 4 units.   1. 4π square units

    B. Circle B has a radius of 10 units.   2. approximately 314 square units

    C. Circle C has a diameter of 16 units.   3. 64π square units

    D. Circle D has a circumference of 4π 4. 16π square units
       units.

6. Two students join a puzzle solving club and get faster at finishing the puzzles as they get more practice. Student A improves their times faster than Student B.

    a. Match the students to the Lines ℓ and m.

    b. Which student was faster at puzzle solving before practice?

(From Unit 5, Lesson 8.)

Grade 8 Unit 5

Lesson 13

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