

## Valentine's Day Word Problems (E)

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Solve each problem in the space provided.

9. For Valentine's Day, Ryker wanted to paint his room's walls and ceiling pink. The hardware store needed a measurement of the surface area to make sure he had enough paint. He measured the rectangular floor to be 12 ft by 11 ft and the distance from the floor to the ceiling to be 8 ft. He also measured the closet door, the room door and the window as he was not going to paint them. In order, they were 3 ft by 6 ft, 42 inches by 84 inches, and 60 inches by 30 inches. Assuming his room was a rectangular prism, what surface area did he report to the hardware store?



10. Valentine's was quickly approaching, so Cupid asked his mother, Venus for some material to make his arrows. For each arrow, he needed a 15 inch piece of ethereal elm, 25 inches of celestial string, and one vaporous arrowhead. How much of each material did he need to make 50 arrows?



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# Valentine's Day Word Problems (E) Answers

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Solve each problem in the space provided.

9. For Valentine's Day, Ryker wanted to paint his room's walls and ceiling. The hardware store needed a measurement of the surface area to make sure he had enough paint. He measured the rectangular floor to be 12 ft by 11 ft and the distance from the floor to the ceiling to be 8 ft. He also measured the closet door, the room door and the window as he was not going to paint them. In order, they were 3 ft by 6 ft, 42 inches by 84 inches, and 60 inches by 30 inches. Assuming his room was a rectangular prism, what surface area did he report to the hardware store?

Walls and Ceiling:

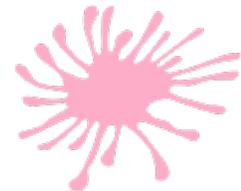
$$2 \times 8 \times 11 = \underline{88} \text{ ft}^2; 2 \times 8 \times 12 = \underline{96} \text{ ft}^2; 11 \times 12 = \underline{132} \text{ ft}^2;$$

Doors and Window:

$$3 \times 6 = \underline{18} \text{ ft}^2; 3.5 \times 7 = \underline{24.5} \text{ ft}^2; 5 \times 2.5 = \underline{12.5} \text{ ft}^2;$$

$$\text{Surface area} = 88 + 96 + 132 - 18 - 24.5 - 12.5 = 261 \text{ ft}^2$$

Ryker told the hardware store, he had  $261 \text{ ft}^2$  to paint.



10. Valentine's was quickly approaching, so Cupid asked his mother, Venus for some material to make his arrows. For each arrow, he needed a 15 inch piece of ethereal elm, 25 inches of celestial string, and one vaporous arrowhead. How much of each material did he need to make 50 arrows?

Ethereal Elm:  $15 \times 50 = 750 \text{ in} = 62.5 \text{ ft}$

Celestial String:

$$25 \times 50 = 1250 \text{ in} = 104 \text{ ft } 2 \text{ in}$$

Vaporous Arrowheads:  $1 \times 50 = 50$  arrowheads

Cupid needed 62.5 feet of ethereal elm, 104 feet plus 2 inches of celestial string and 50 vaporous arrowheads to make his 50 arrows.



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