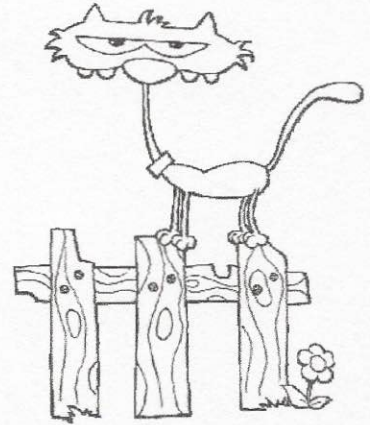
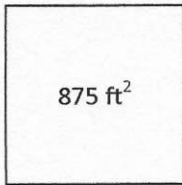


Name _____

Date _____

Estimating Square Roots Application Word Problems Lesson

Mark wants to fence in his square backyard. He measures his backyard to be 875 square feet. Fencing is sold by the foot, how many feet of fencing will Mark need?

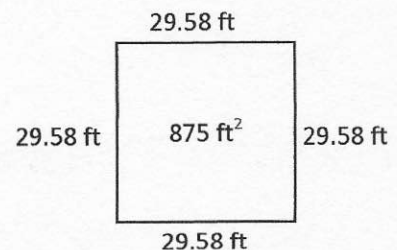
**Explanation:**

$\sqrt{\text{Square Footage}} = \text{length or width of yard.}$

$$\sqrt{875} = 29.58 \text{ feet}$$

Mark will need 29.58 feet for each of the 4 sides.

$$29.58 \text{ feet} \times 4 = 118.32 \text{ feet of fence}$$



Name _____

Date _____

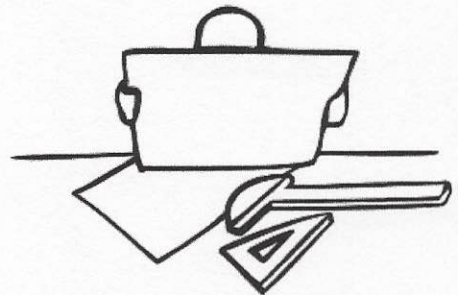
Exact Square Root Word Problem Worksheet 1

James wants to buy a new rug for his living room. In a department store he finds a square rug that has an area of 9 m^2 .

1. How long is each side of the rug?
2. How many of those rugs are needed to cover an area of 36 square meters?
3. If the room has a square area of 16 square meters and the rug is placed in the middle of the room, how much space would there be between each side of the rug and the wall?

Jessica has a square picture with an area of 900 square inches.

4. How long is each side of the picture? (in inches)
5. How many centimeters would that be? (1 inch = 2.54 cm)
6. If each side was 2 inches longer, what would the area of the picture be?



The Smiths want to fence their square garden, which has an area of 256 square meters.

7. How long is each side of the garden?
8. If one side of the garden borders the house and therefore doesn't need a fence, how many meters of fence are necessary?
9. The fence is built of wooden square parts that have an area of 4 square meters each. What length does one part cover?
10. How many of those parts are needed to fence the garden?



Name _____

Date _____

Estimating Square Roots Word Problems Worksheet 1

Direction: Estimate the results to the nearest whole number.

A square lattice window has an area of 622 square inches.

1. How long is each side of the window?
2. If the window is divided into four equal squares, what is the area of each square?
3. How long is each side of those squares?

A yard has a square gate that has an area of 8 square meters.

4. What is the height of the gate in meters?
5. How many feet would that be? (1 meter \approx 3 feet)
6. If each side was 1 foot longer, what would be the area of the gate in square feet?



Carry wants to frame a square picture, which has an area of 950 square inches.

7. How long is each side of the picture?
8. What is the perimeter of the frame?
9. She has another square picture with an area of 1200 square inches. How long is each side of this picture?
10. How much is that in centimeters?

