1. Tiara wants to put fringe on the edge of her tablecloth. Her tablecloth is circular with a diameter of 6 feet. If fringe costs $2.49 per yard, how much will it cost to purchase the fringe? (No sales tax)

$$6.28 \text{ yds} \sim 7 \text{ yds} \quad \$17.43$$

$$\$15.65$$

2. Justin needs to lay sod in his backyard. If his yard measures 60 feet by 70 feet, how many square feet of sod does he need? If sod costs $1.15 a square foot installed, how much will it cost to sod his yard?

$$4200 \text{ sq ft} \quad \$4,830$$

3. Jonah wants to plant a garden. The garden will be rectangular with dimensions 8 feet by 20 feet. He needs to purchase chicken wire to put around his garden to keep bunnies out. To save money he plans to place the garden right next to the back of his house so that the garden extends 8 feet out from his house. How much chicken wire does he need to purchase?

$$36 \text{ ft}$$

4. Nick wants to carpet his bedroom. His room is L-shaped as shown below. How many square yards of carpeting are needed? If the carpet he wants to purchase is $16.49 per square yard, how much will the carpeting cost?

14 ft

154   11 ft

6 ft 36

6

20 ft
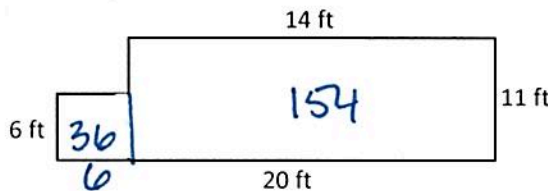
$$\frac{190 \text{ ft}^2}{9 \text{ ft}^2} = 1 \text{ yd}^2$$

$$21.1 \sim 22 \text{ sq yds}$$

$$\$362.78$$

5. Two right triangles are similar and have areas of 36 cm^2 and 144 cm^2. If the hypotenuse of the larger triangle is 30 m long, what is the length of the hypotenuse of the smaller triangle?
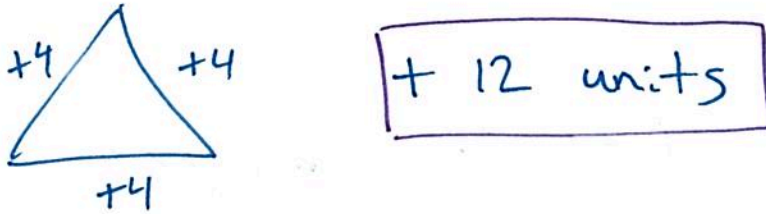
$$\underline{\text{Area}} \qquad \underline{\text{Scale}}$$

$$\frac{\sqrt{36}}{\sqrt{144}} = \frac{6}{12} \to \frac{1}{2} \qquad \frac{1}{2} = \frac{x}{30}$$

$$\boxed{x = 15 \, m}$$

6. If you add 4 to each side of your triangle what happens to the perimeter of your figure?

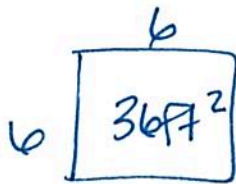+4 (left side) +4 (right side) +4 (bottom)

$$\boxed{+ \; 12 \; units}$$

7. The cover of a calendar is printed on a sheet of paper that measures 60 cm by 30 cm. The diagonal of this sheet of paper is 67.1 cm. If a smaller version of this calendar is printed on a sheet of paper with ¼ the area, by what factor would the length of the diagonal decrease?

60 (top), 30 (left), 67 (diagonal)
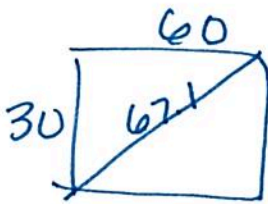
$$\left(\text{Scale} = \frac{1}{2}\right)$$

$$\underline{\text{Area}}$$

$$\frac{\sqrt{1}}{\sqrt{4}} = \frac{1}{2}$$

8. Jesse used 1 foot square tiles to cover the floor of his 6 foot by 6 foot bathroom and wants to use the same tiles in the kitchen. The floor in the kitchen is double the length and width of the bathroom floor. How many times the number of floor tiles used to cover the bathroom floor should it take to cover the kitchen floor?

6 (top), 6 (left), 36 ft^2 (inside)

$$\underline{\text{Scale}} \qquad \underline{\text{Area}}$$

$$\left(\frac{1}{2}\right)^2 \implies \frac{1}{4} \qquad \left(\text{4 times}\right)$$

$$\frac{1}{4} = \frac{36}{x}$$

$$\boxed{x = 144 \; tiles}$$