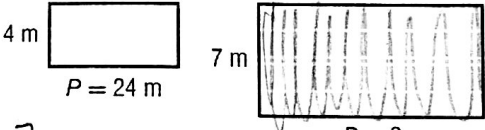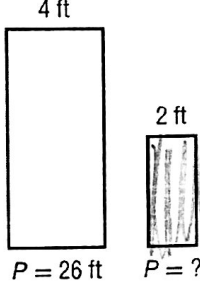NAME _Kelly_

Area and Perimeter of Similar Figures Homework
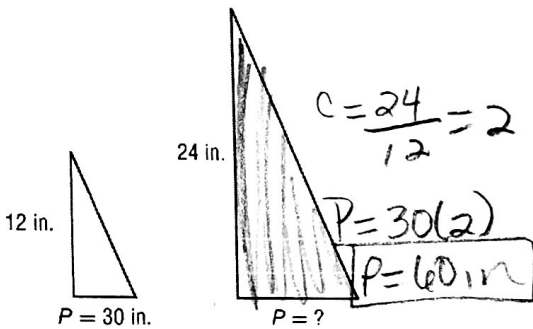
For each pair of similar figures, find the perimeter of the second figure.

1.

4 m
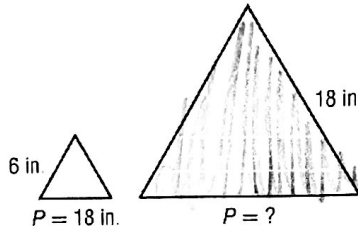
$P = 24$ m

7 m

$P = ?$

$C = \frac{7}{4} = 1.75$

$P = 24(1.75) = \boxed{42\,m}$

2.
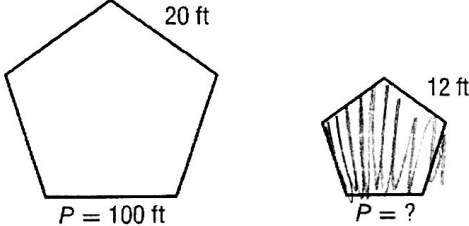
4 ft

$P = 26$ ft

2 ft

$P = ?$

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

$P = 26(\frac{1}{2}) = \boxed{13\,ft}$

3.

12 in.

$P = 30$ in.

24 in.

$P = ?$

$C = \frac{24}{12} = 2$

$P = 30(2)$

$P = 60\,in$

4.

6 in.

$P = 18$ in.

18 in.

$P = ?$

$C = \frac{18}{6} = 3$

$P = 18(3) = \boxed{54\,in}$

5.

20 ft

$P = 100$ ft

12 ft

$P = ?$

$C = \frac{12}{20} = \frac{6}{10} = \frac{3}{5}\ or\ .6$

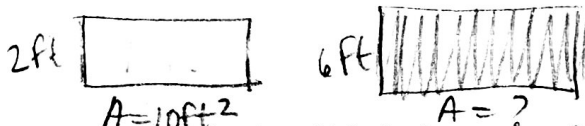$P = 100(.6) = \boxed{60\,ft}$

6.

21 cm

$P = 115.5$ cm

28 cm

$P = ?$
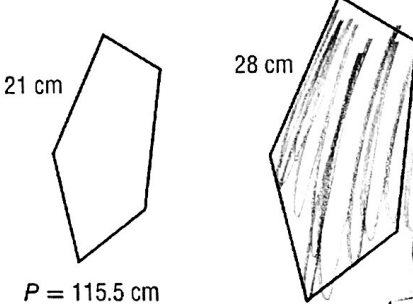
$C = \frac{28}{21} = \frac{4}{3}\ or\ 1\frac{1}{3}$

$P = 115.5(\frac{4}{3})$

$P = 154\,cm$

7. A triangle has a side length of 3 inches and an <u>area</u> of 22 square inches. A similar triangle has a corresponding side length of 6 inches. Find the area of the larger triangle.
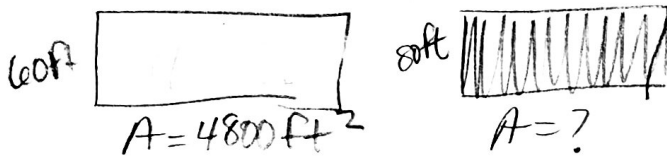
3 in $A = 22\,in^2$

6 in $A = ?$

$C = \frac{6}{3} = 2$

$A = (22)(2^2) = \boxed{88\,in^2}$

8. A rectangle has a side length of 2 feet and an area of 10 square feet. A similar rectangle has a corresponding side length of 6 feet. Find the area of the larger rectangle.

2 ft $A = 10\,ft^2$

6 ft $A = ?$

$C = \frac{6}{2} = 3$

$A = (10)(3^2) = \boxed{90\,ft^2}$

9. LAKE LOT A rectangular shaped lake lot has an area of 4,800 square feet. The width of the lot is 60 feet. A similar lot across the road has a width of 80 feet. What is the area of the lot across the road? Round your answer to the nearest whole number.

60 ft $A = 4800\,ft^2$

80 ft $A = ?$

$C = \frac{80}{60} = \frac{8}{6} = \frac{4}{3}\ or\ 1\frac{1}{3}$

$A = 4800(4/3)^2 = 4800(\frac{16}{9})$

$A \approx 8533\,ft^2$