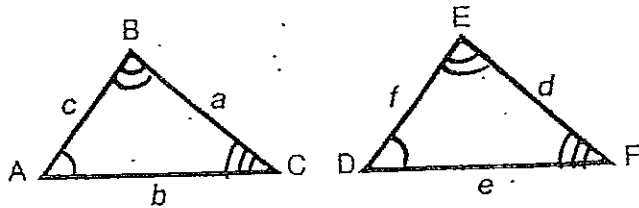## Pre-Algebra
Chapter 8-3 - Similar Triangles and Proportions
(round answers to 100ths)

△ ABC ~△ DEF. The letters a, b, c, d, e, and f represent the lengths of the sides.

△ RST ~△ XYZ. The letters r, s, t, x, y, and z represent the lengths of the sides.

1) Find e, if $a = 8$, $d = 22$, $b = 4$.

2) Find d, if $b = 6$, $e = 15$, $a = 8$.

3) Find a, if $f = 32$, $c = 12$, $d = 24$.

4) Find c, if $f = 15$, $b = 7$, $e = 3$.

5) Find f, if $c = 2\frac{1}{2}$, $d = 24$, $a = 10$.

6) Find b, if $c = 5$, $e = 7$, $f = 9$.

7) Find a, if $b = 11$, $e = 8$, $d = 6$
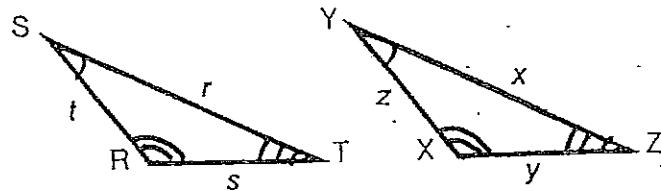
8) Find t, if $s = 1\frac{1}{2}$, $y = 5$, $z = 8$.

9) Find y, if $s = 42$, $r = 9$, $x = 2$.

10) Find r, if $z = 5$, $x = 2\frac{1}{3}$, $t = 12$.

11) Find x, if $s = 2$, $r = 2.3$, $y = 3.4$.

12) Find s, if $z = 3$, $y = 4.8$, $t = 1.2$.

13) Find z, if $r = x$, $t = 4.39$.

14) Find t, if $y = 3$, $s = 2$, $z = 1$.

1) $e =$

2) $d =$

3) $a =$

4) $c =$

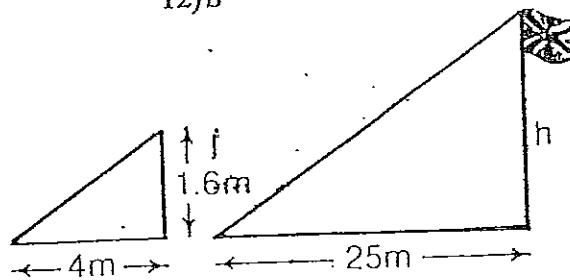5) $f =$

6) $b =$

7) $a =$

8) $t =$

9) $y =$

10) $r =$

11) $x =$

12) $s =$

13) $z =$

14) $t =$

15) A flagpole casts a shadow 25 meters long. If a woman who is 1.6 meters tall casts a shadow 4 meters long at the same time and location, the flagpole is _____ meters tall.

) A building casts a shadow 37.5 meters long. If a meter stick casts a shadow 3 meters long at the same time and location, the building is _____ meters high.