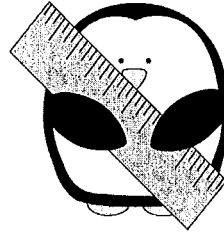


Name _____

Date _____ Period _____

Math 8
Quiz Review

Quiz Review



Write the name of each set of angles.

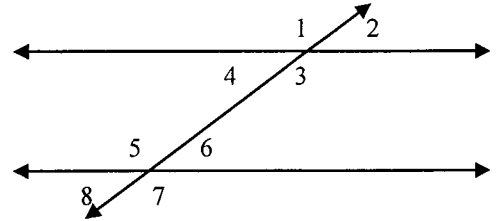
1) $\angle 1$ and $\angle 3$ _____

2) $\angle 1$ and $\angle 7$ _____

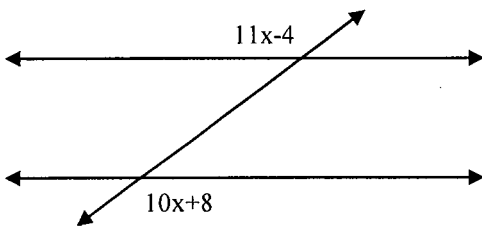
3) $\angle 2$ and $\angle 6$ _____

4) $\angle 5$ and $\angle 8$ _____

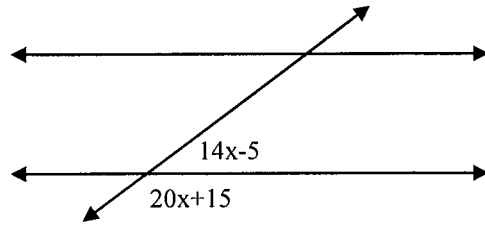
5) $\angle 4$ and $\angle 6$ _____



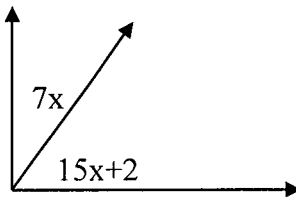
6) Find x.



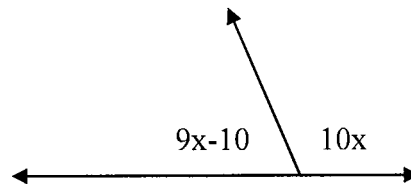
7) Find x.



8) Find x.



9) Find x.



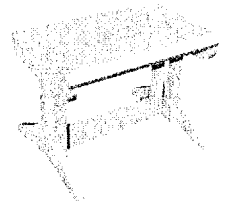
10) If two angles are complimentary and one angle is $(2x + 3)^\circ$ and the other is $(3x - 2)^\circ$. Find x .

11) Two angles are supplementary and are represented by $(7x)^\circ$ and $(35x+12)^\circ$. Find the measures of both angles.

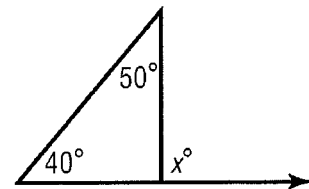
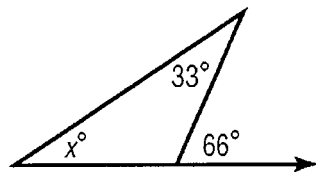
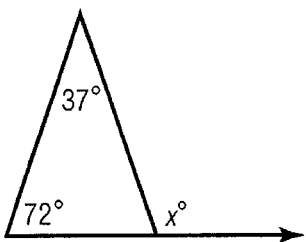
12) A naval distress signal flag is in the shape of a triangle. Two of the three angles measure 55° each. What is the measure of the third angle?



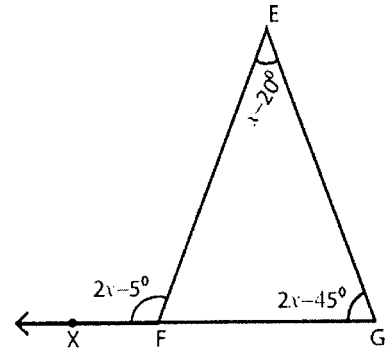
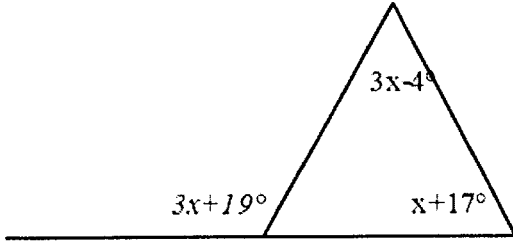
13) The supports of a wooden table are in the shape of a triangle. Find the angles of the triangle if the measures of the angles are in the ratio $4x : 4x : 10x$.



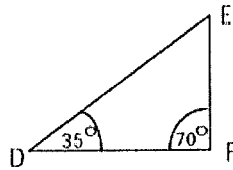
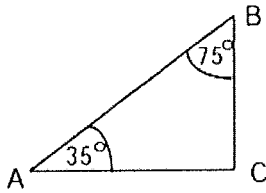
14) Solve for x in each.



15) Solve for x in each.



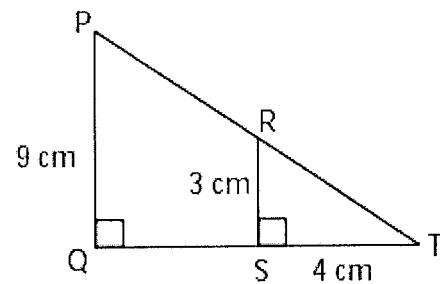
16) Are the following triangles similar? Tell how you know.



If yes, complete the following statement $\triangle CAB \sim \triangle$ _____

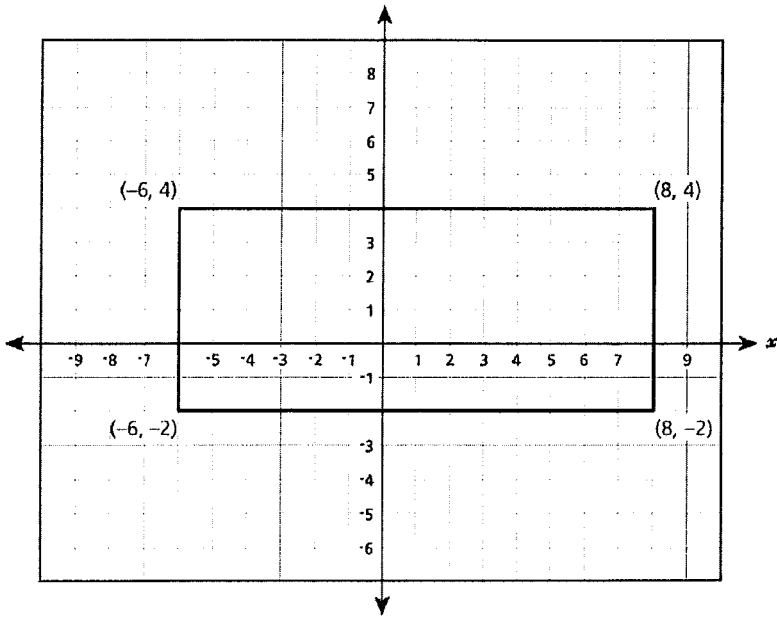
17) Looking at the triangles in the figure on the right:

- Are the two triangles similar?
- What is the length of QT ?
- If PT is 15 cm, what is the length of RT ?



d) What do you know about the perimeters of the two triangles?

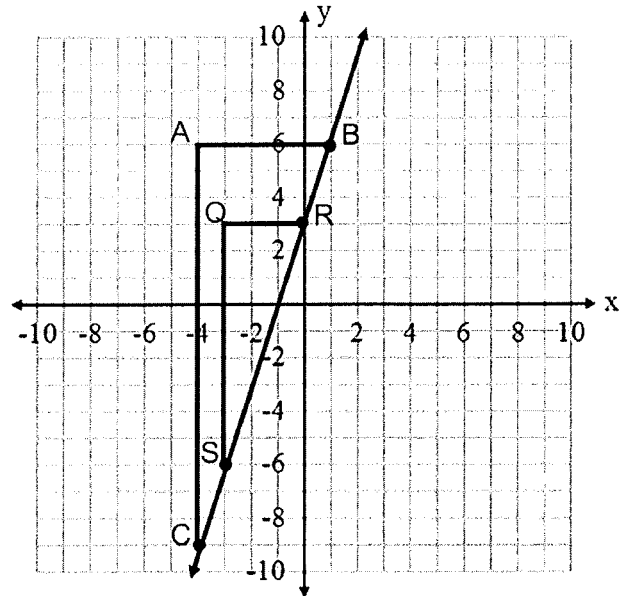
18) Hannah enlarged a plan for an outdoor stage. The original plan is show below.



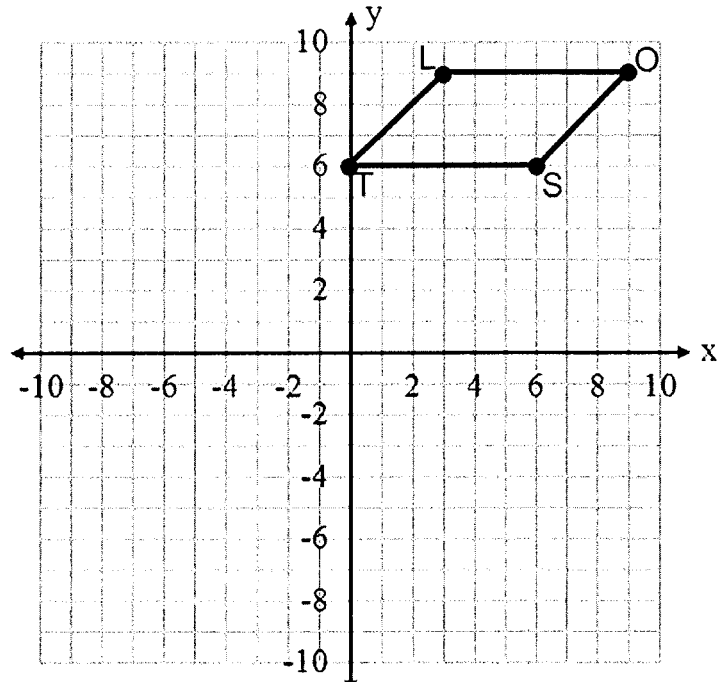
She dilated the outdoor stage by a scale factor of four with the center of dilation at the origin. Which ordered pair will be the coordinates of one of the vertices?

- a) $(2, 1)$
- b) $(8, 16)$
- c) $(32, 4)$
- d) $(32, 16)$

19) Is $\triangle ABC \sim \triangle QRS$? _____ How do you know?



20) Dilate parallelogram $LOST$ with a scale factor of $\frac{1}{3}$. Be sure to label.



10) If two angles are complementary and one angle is $(2x + 3)^\circ$ and the other is $(3x - 2)^\circ$. Find x.

$$2x + 3 + 3x - 2 = 90$$

$$5x + 1 = 90$$

$$\frac{5x}{5} = \frac{89}{5}$$

$$x = 17.8 \text{ or } 17.8$$

11) Two angles are supplementary and are represented by $(7x)^\circ$ and $(35x + 12)^\circ$. Find the measures of both angles.

$$7x + 35x + 12 = 180$$

$$42x + 12 = 180$$

$$42x = 168$$

$$\frac{42x}{42} = \frac{168}{42}$$

$$x = 4$$

12) A naval distress signal flag is in the shape of a triangle. Two of the three angles measure 55° each. What is the measure of the third angle?

$$55 + 55 + x = 180$$

$$110 + x = 180$$

$$-110 \quad -110$$

$$x = 70$$

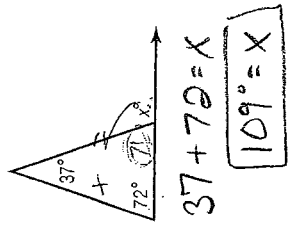
13) The supports of a wooden table are in the shape of a triangle. Find the angles of the triangle if the measures of the angles are in the ratio $4x : 4x : 10x$.

$$4x + 4x + 10x = 180$$

$$\frac{18x}{18} = \frac{180}{18}$$

$$x = 10$$

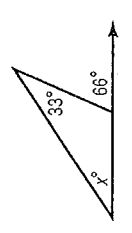
14) Solve for x in each.



$$37 + 72 = x$$

$$109 = x$$

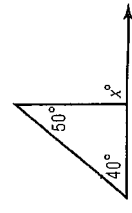
$$\frac{180}{-109}$$



$$33 + x = 66$$

$$-33 \quad -33$$

$$x = 33$$



$$50 + 40 = x$$

$$90 = x$$

Quiz Review

Write the name of each set of angles.

- $\angle 1$ and $\angle 3$ Vertical
- $\angle 1$ and $\angle 7$ alternate exterior
- $\angle 2$ and $\angle 6$ corresponding
- $\angle 5$ and $\angle 8$ supplementary
- $\angle 4$ and $\angle 6$ alternate interior

6) Find x.

$$11x - 4 = 10x + 8$$

$$-10x \quad -10x$$

$$x - 4 = 8$$

$$+4 \quad +4$$

$$x = 12$$

7) Find x.

$$14x - 5 = 20x + 15 = 180$$

$$34x + 10 = 180$$

$$-10 \quad -10$$

$$\frac{34x}{34} = \frac{170}{34}$$

$$x = 5$$

8) Find x.

$$7x + 15x + 2 = 90$$

$$22x + 2 = 90$$

$$-2 \quad -2$$

$$\frac{22x}{22} = \frac{88}{22}$$

$$x = 4$$

9) Find x.

$$9x - 10 + 10x = 180$$

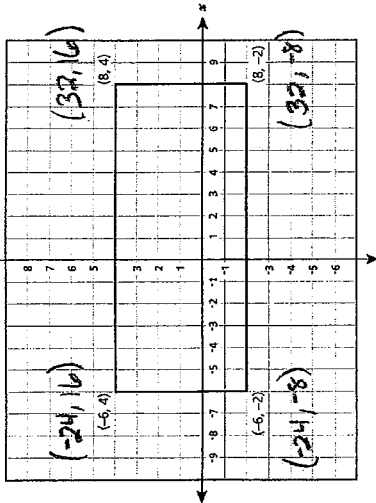
$$19x - 10 = 180$$

$$+10 \quad +10$$

$$\frac{19x}{19} = \frac{190}{19}$$

$$x = 10$$

- 18) Hannah enlarged a plan for an outdoor stage. The original plan is show below.



She dilated the outdoor stage by a scale factor of four with the center of dilation at the origin. Which ordered pair will be the coordinates of one of the vertices?

- a) (2, 1)
b) (8, 16)
c) (32, 4)
d) (32, 16)

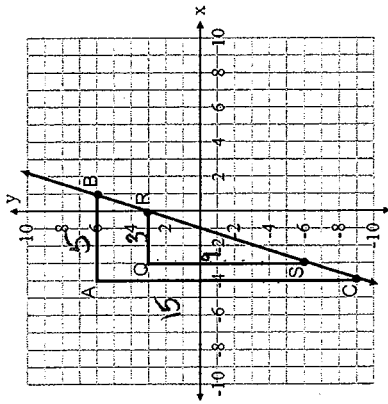
- 19) Is $\triangle ABC \sim \triangle QRS$? Yes How do you know?

The sides are proportional.

$$\frac{AC}{AB} = \frac{SQ}{QR}$$

$$\frac{15}{5} = \frac{9}{3}$$

$$3 = 3 \checkmark$$



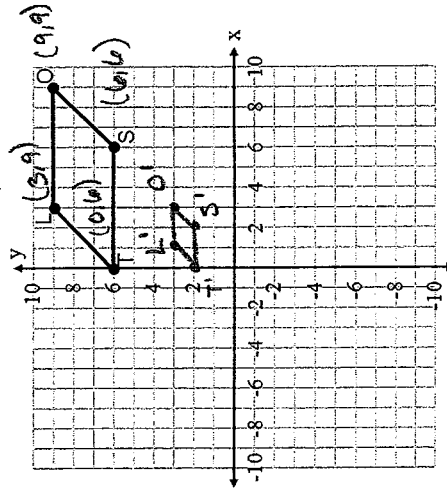
- 20) Dilate parallelogram $LOST$ with a scale factor of $\frac{1}{3}$. Be sure to label.

$$L(3, 9) \rightarrow L'(1, 3)$$

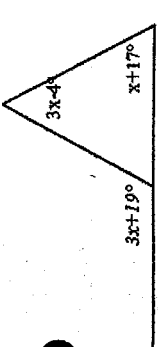
$$O(9, 9) \rightarrow O'(3, 3)$$

$$S(6, 6) \rightarrow S'(2, 2)$$

$$T(0, 6) \rightarrow T'(0, 2)$$



- 15) Solve for x in each.



$$3x+19 = 3x-4 + x+17$$

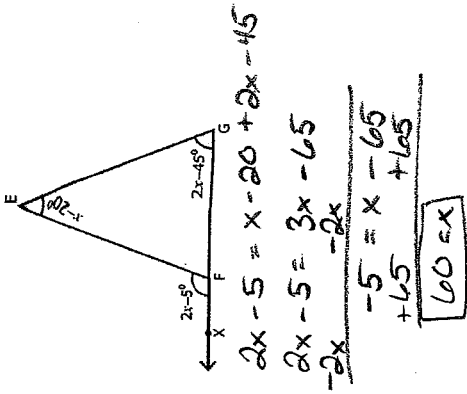
$$3x+19 = 4x+13$$

$$-3x \quad -3x$$

$$19 = x+13$$

$$-13 \quad -13$$

$$6 = x$$



$$2x-5 = x-20 + 2x-45$$

$$2x-5 = 3x-65$$

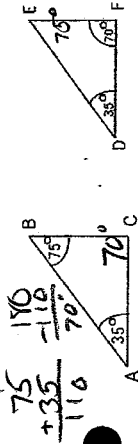
$$-2x \quad -2x$$

$$-5 = x-65$$

$$+65 \quad +65$$

$$60 = x$$

- 16) Are the following triangles similar? Tell how you know.



$$\frac{75}{110} = \frac{35}{105}$$

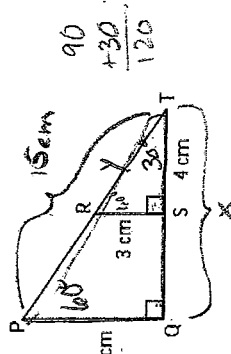
$$\frac{110}{70} = \frac{180}{75}$$

Yes, the angles are equal.

If yes, complete the following statement $\triangle CAB \sim \triangle FDE$

- 17) Looking at the triangles in the figure on the right:

- a) Are the two triangles similar? Yes, they are.
b) What is the length of QT ? $3 \cdot 4 = 12 \text{ cm}$
c) If PT is 15 cm, what is the length of RQ ? $15 \div 3 = 5 \text{ cm}$



$$\frac{15}{9} = \frac{15}{y}$$

$$y = 5 \text{ cm}$$

- d) What do you know about the perimeters of the two triangles?

They are proportional. The perimeter of the larger is 3 times the perimeter of the smaller.