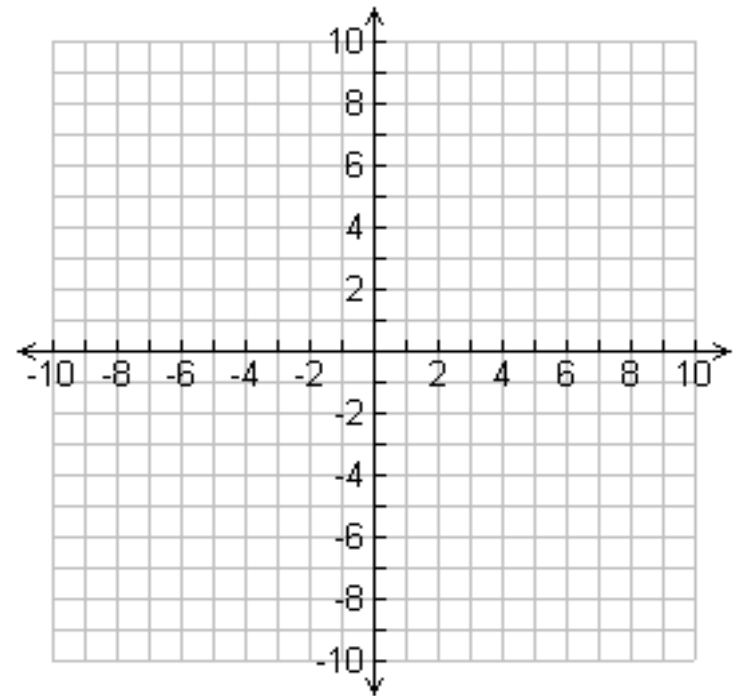


Warmup 2/ $2\left(\frac{5}{2} + \frac{6}{2}\right)$

1) Complete the table and use it to graph the function $y = (x - 1)^2$.

x	y
-2	
-1	
0	
1	
2	
3	
4	



2) There are three different ways you can tell that this function is not linear. Describe them all.

QUIZ Topics

- Naming angles correctly using 3 letters
- Measuring Angles with a protractor
- Complementary/Supplementary/Vertical
- Finding angle measures with parallel lines and a transversal
- Corresponding/Alternate Interior/Alternate Exterior/Same-side interior
- Angle sums of triangles (Today)

Table of Contents (2nd Semester)

- p. 1 Exponent Basics (1.2)
- p. 2 Zero and Negative Exponents (1.5)
- p. 3 Multiplying and Dividing Powers (1.3)
- p. 4 Power to a Power (1.4)
- p. 5 Scientific Notation (1.6)
- p. 6 Calculating with Scientific Notation (1.7)
- p. 7 Angle Basics
- p. 8 Angles formed by Parallel Lines
- p. 9 Angle Sums of a Triangle (Guided)**

BACK TO THIS PAGE!

Angle Sum of a Triangle + Review

9

Objectives:

- Given two angles in a triangle, find the measure of the third
- Use all the angle rules we have learned
- Set up the correct equation based on how the diagram looks

p. 393 (1, 2, 6, 8, 12, 14)

**Work must be shown on
ALL problems!**

1) $x = 55$

2) $x = 57$

6) $x = 112$

8) $m\angle A = 47^\circ$

$$m\angle B = 90^\circ$$

$$m\angle C = 43^\circ$$

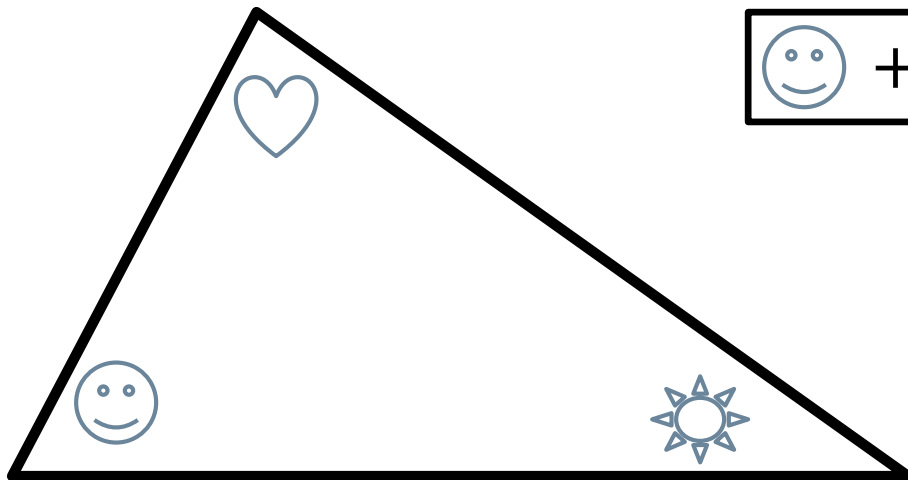
12) $53^\circ, 55^\circ, 72^\circ$

14) The “8x” should be a “9x.” So x should be 20 instead of 22.5, and the angles would be 20° , 60° , and 100° .

REMEMBER:

□ Interior Angles of a Triangle:

▣ Their sum is always 180° !!!!!!

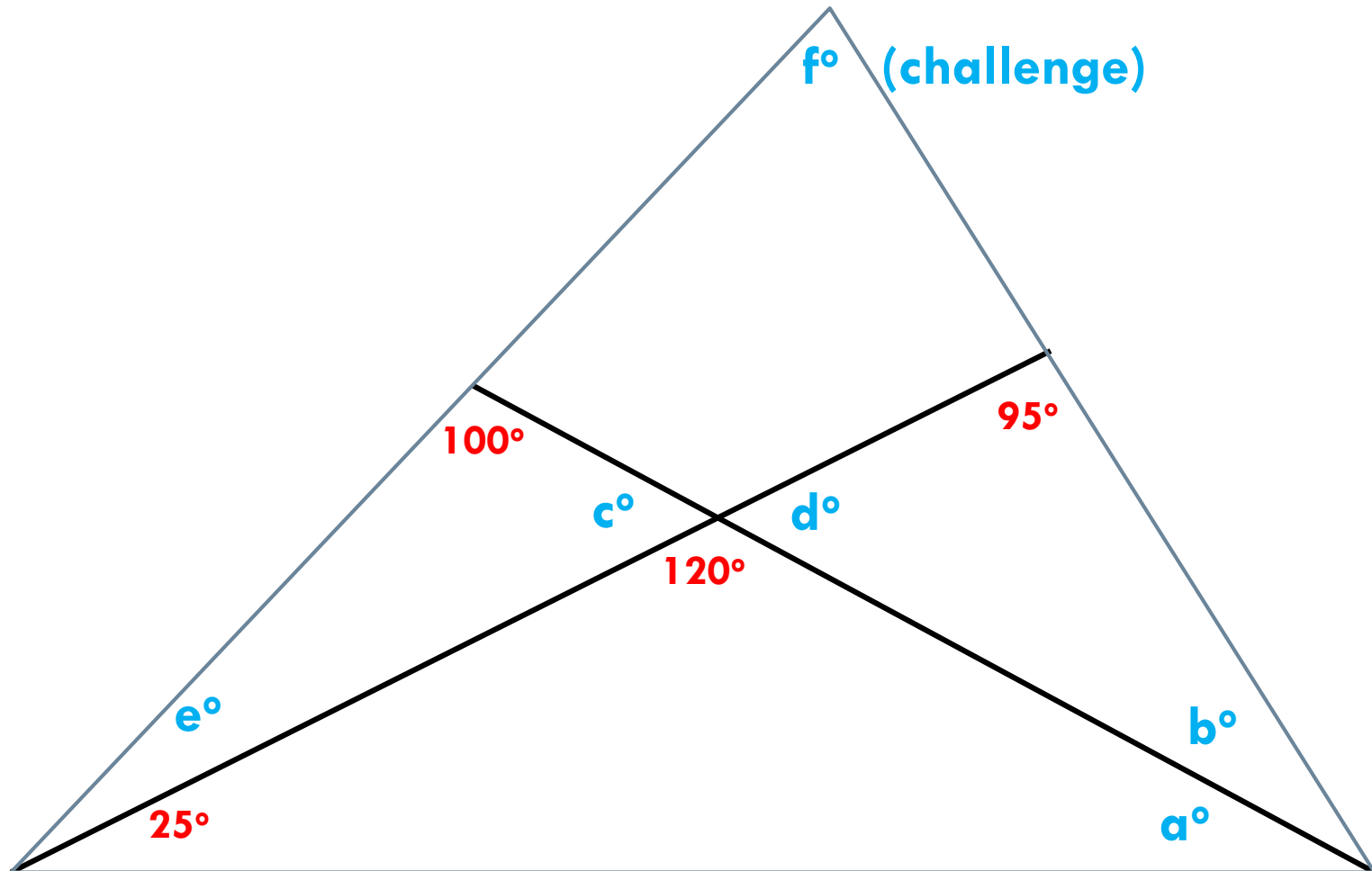


$$\text{smiley face} + \text{heart} + \text{sun} = 180^\circ$$

Video: Angle sum of a triangle

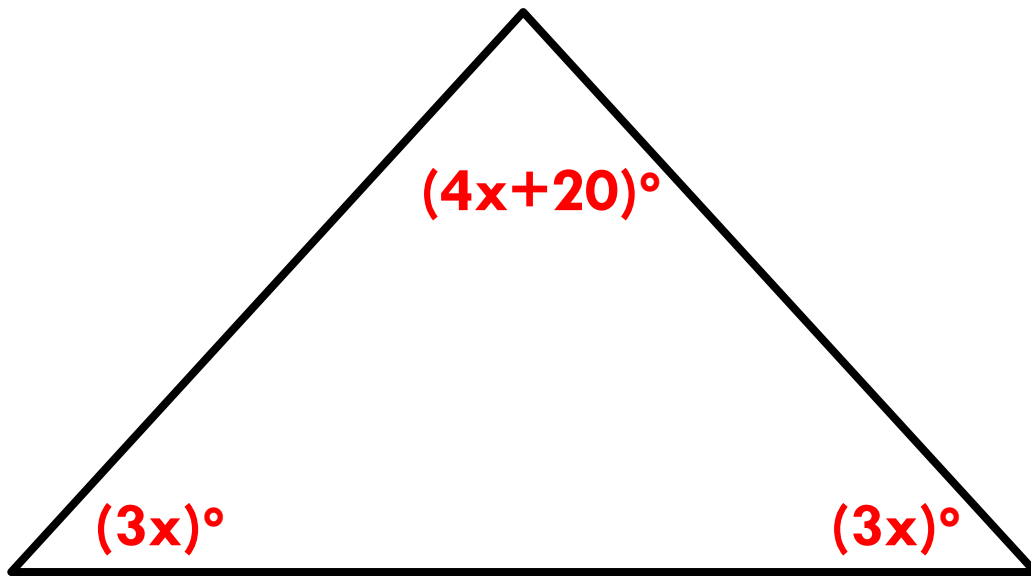


Find all angle measures:



Algebra Connection...

□ Find the measure of each angle:



$$(3x) + (3x) + (4x + 20) = 180$$

$$10x + 20 = 180$$

$$10x = 160$$

$$x = 16$$

$$(3x) = 3 \cdot 16 = 48^\circ$$

$$(4x + 20) = 4 \cdot 16 + 20 = 84$$

$$48^\circ, 48^\circ, 84^\circ$$

$$\text{Check: } 48 + 48 + 84 = 180!$$

With algebra...

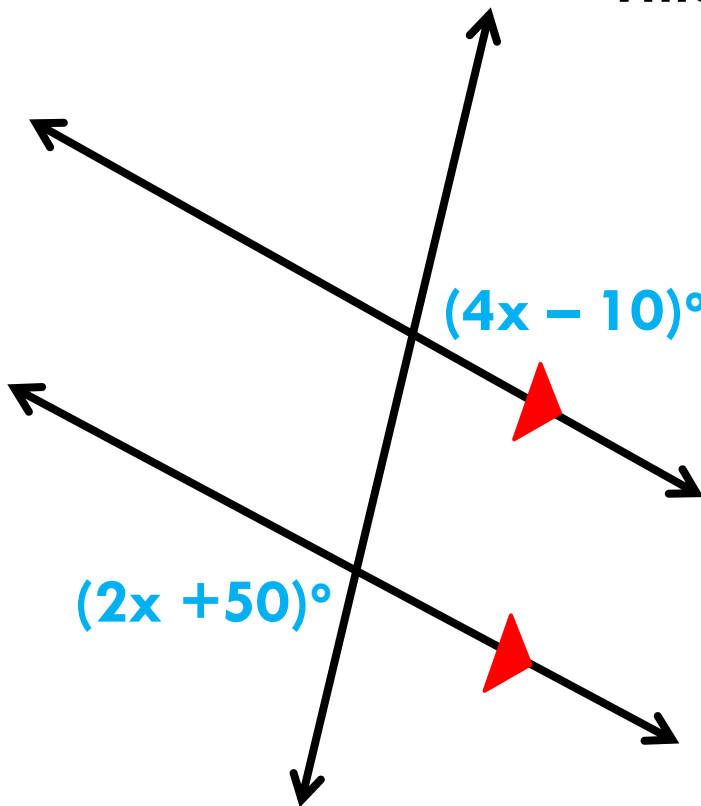
- Find the value of x .

Type of Angles? Alternate Exterior

This means they are Congruent

$$2x + 50 = 4x - 10$$

$$x = 30$$

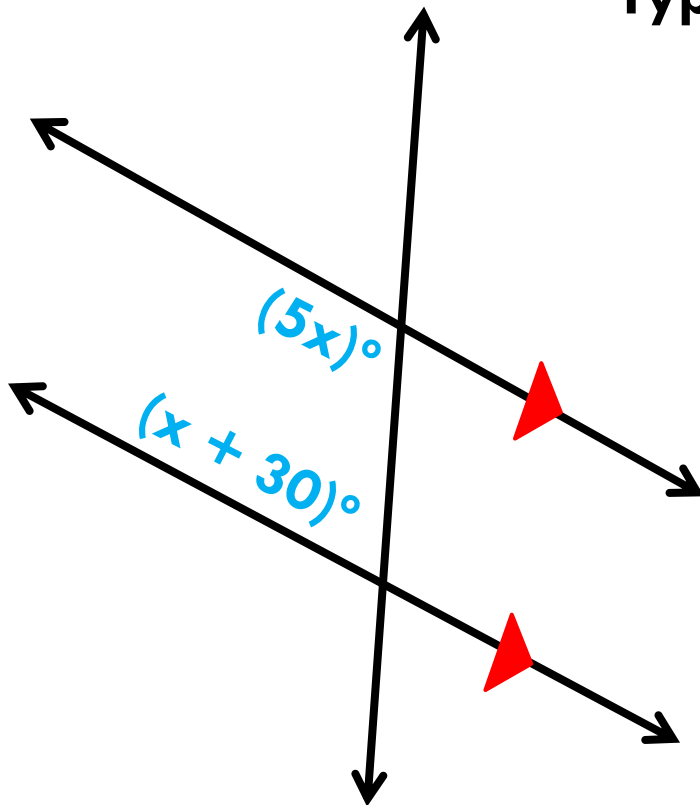


With algebra...

- Find the measure of both angles.

This means they are Same-Side Interior

Type of Angles? Supplementary



$$(5x) + (x + 30) = 180$$

$$6x + 30 = 180$$

$$x = 25$$

$$\text{Top angle: } 5 \cdot 25 = 125^\circ$$

$$\text{Bottom angle: } 25 + 30 = 55^\circ$$

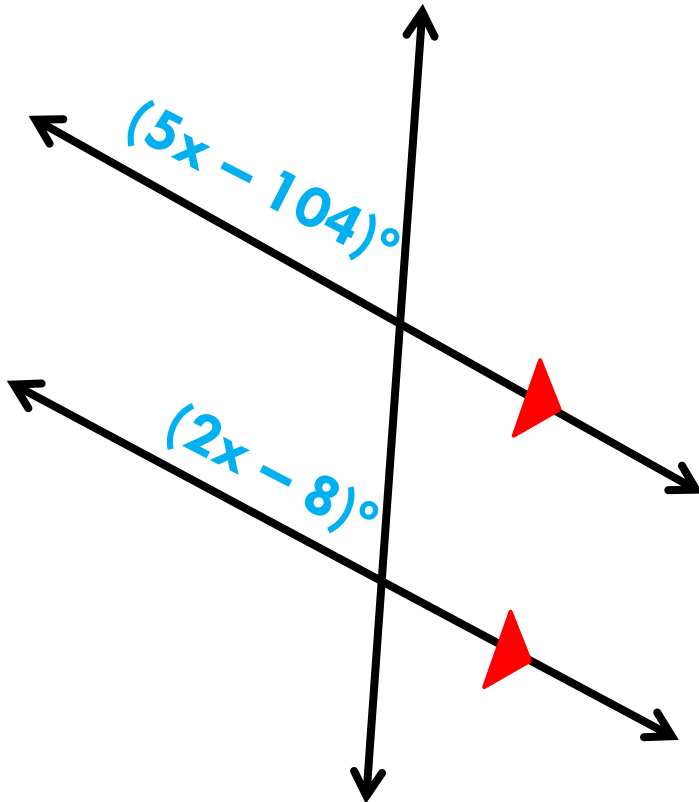
$$\text{Check: } 125 + 55 = 180!$$

With algebra...

- Find the measure of both angles.

Type of Angles? Corresponding

This means they are Congruent



$$5x - 104 = 2x - 8$$

$$3x - 104 = -8$$

$$3x = 96$$

$$x = 32$$

$$\text{Top angle: } 5 \cdot 32 - 104 = 56^\circ$$

$$\text{Bottom angle: } 2 \cdot 32 - 8 = 56^\circ$$

Check: They're the same!

HOMEWORK

- Finish the worksheet
- **Part of this assignment is to check your answers with a different color using my website. It will remind you to do this at the end of the worksheet.**
- It is extreeeeeeeeeeemely important that you do this. We will not have much time to go over it on Wednesday before the quiz!!!