

I will be able to distinguish similar and congruent triangles and solve for missing sides/angles using congruency and similarities

**Checking In** New Log sheets

**Minds on** 1. Whiteboards - angles!  
2. Vocabulary and Triangle Activity

**Action!** Congruence and Similarity

**Consolidation** P378 #1,2,5,6,7ac, 8ac,11,14

# New Unit

Similar Triangles and Trigonometry

# Solving Ratios

$$\frac{x}{6} = \frac{2}{4}$$

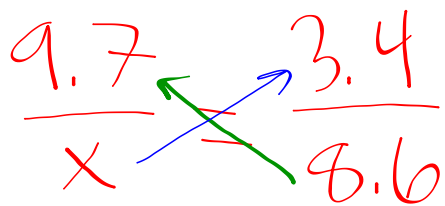
$$\frac{4x}{4} = \frac{12}{4}$$

$$x = 3$$

$$\frac{x}{2.4} = \frac{0.3}{6.4}$$

$$\frac{6.4x}{6.4} = \frac{0.72}{6.4}$$

$$x = 0.11$$

$$\frac{9.7}{x} = \frac{3.4}{8.6}$$


$$\frac{83.42}{3.4} = \frac{3.4x}{3.4}$$

$$x = 24.54$$

$$\frac{1.4}{11.2} = \frac{x}{6.7}$$

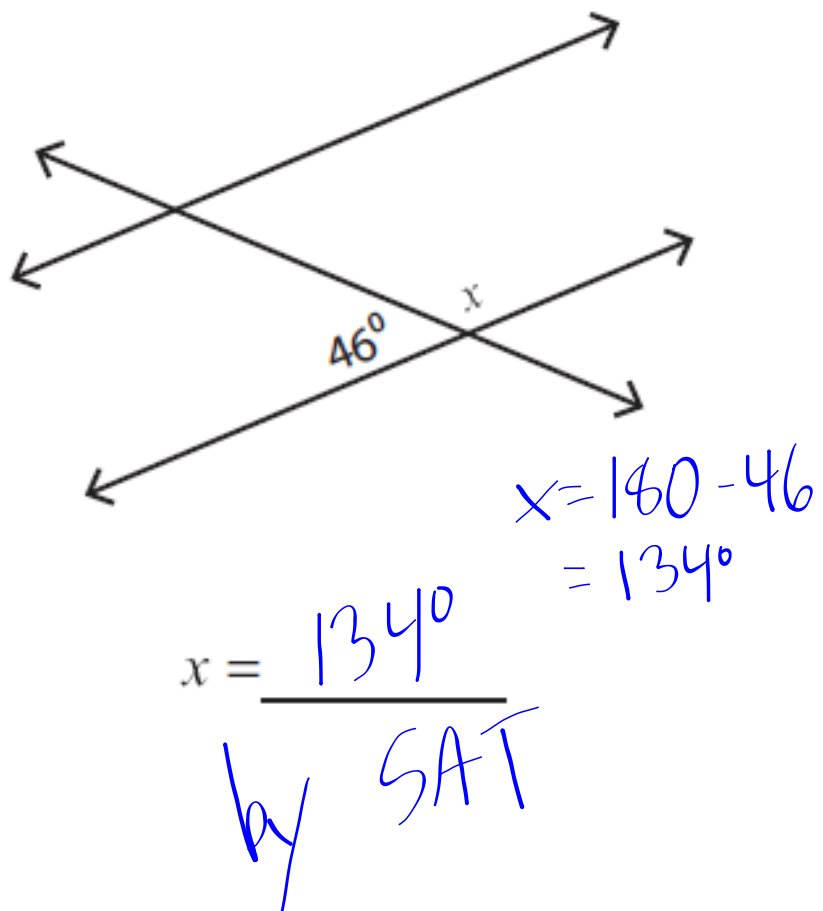
$$\frac{9.38}{11.2} = \frac{11.2x}{11.2}$$

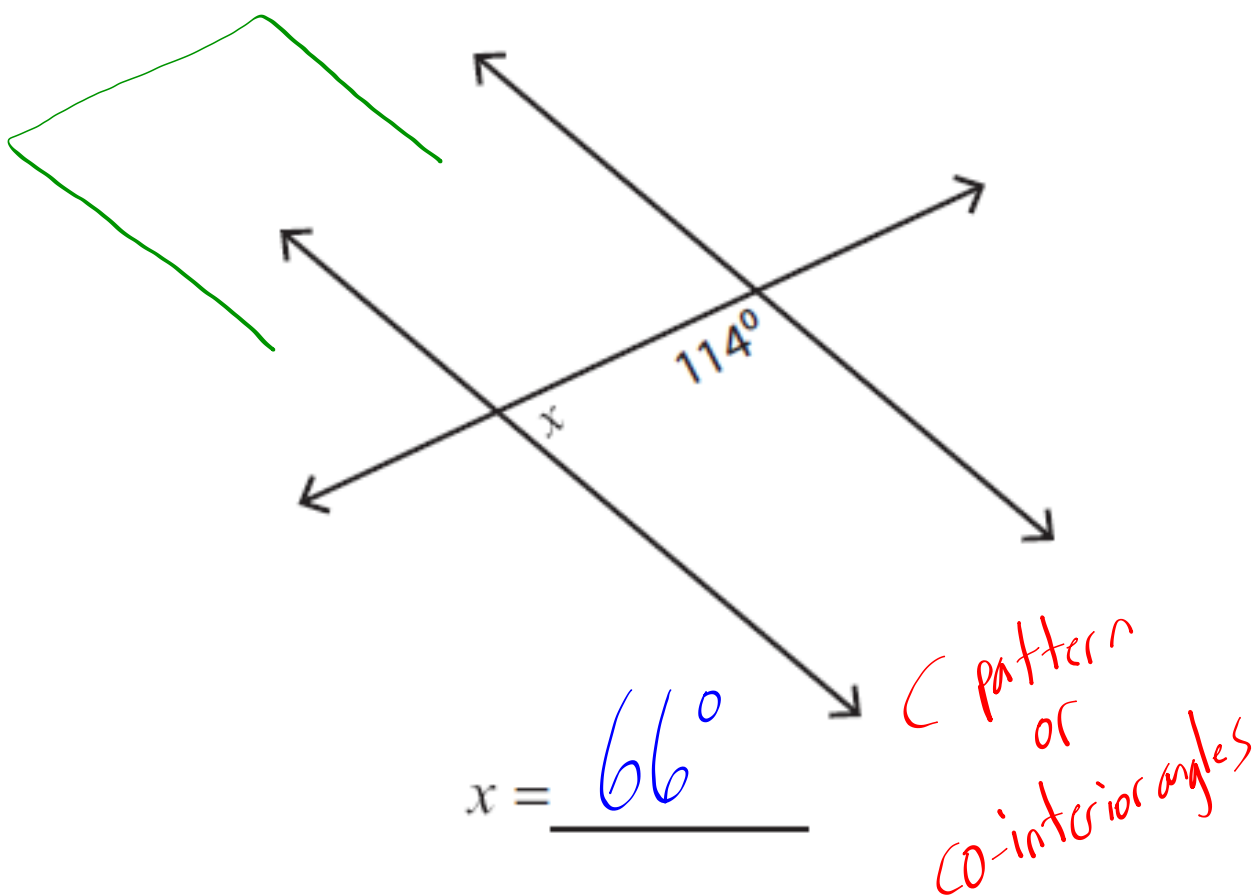
$$x = 0.84$$

$$\frac{4.4}{7.3} = \frac{5.3}{x}$$

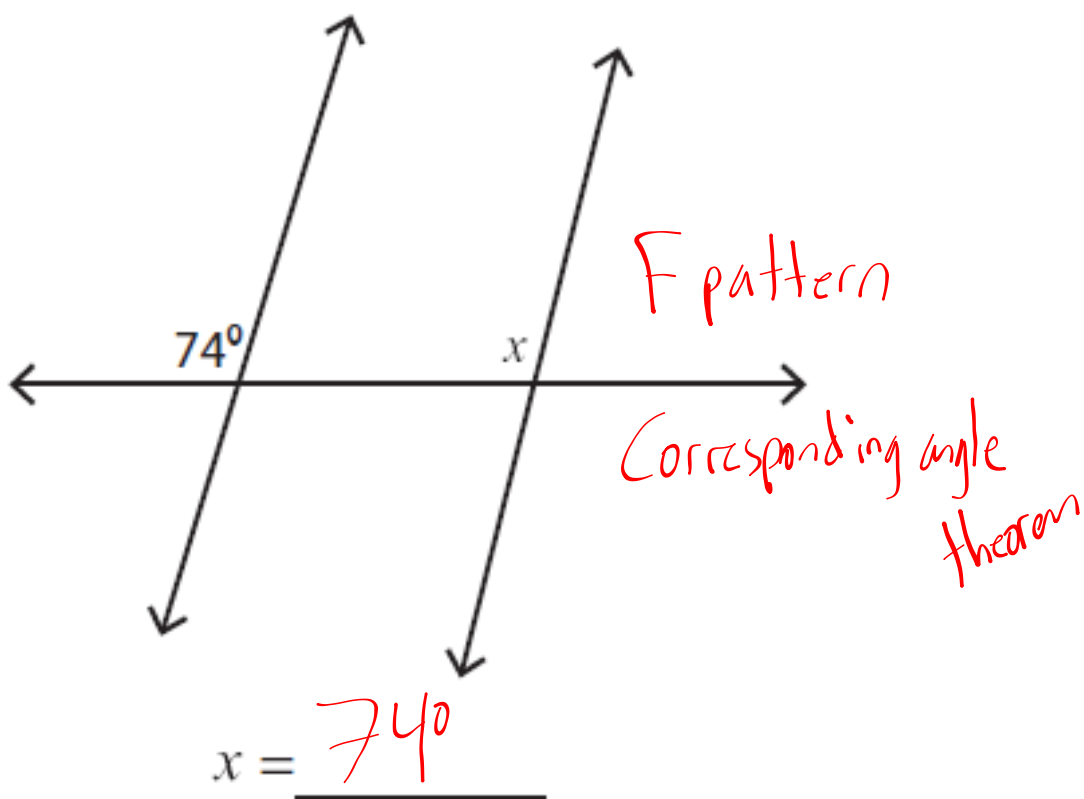
$$\frac{4.4x}{4.4} = \frac{34.69}{4.4}$$

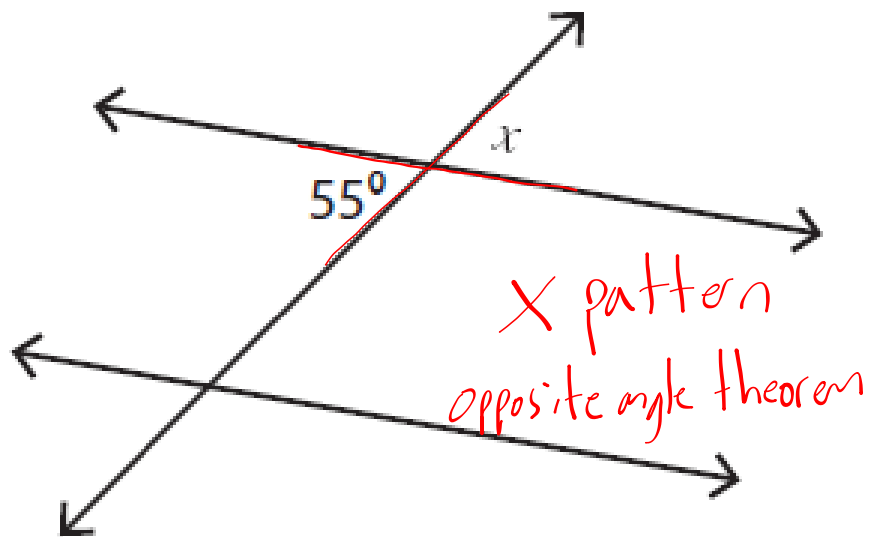
$$x = 8.79$$



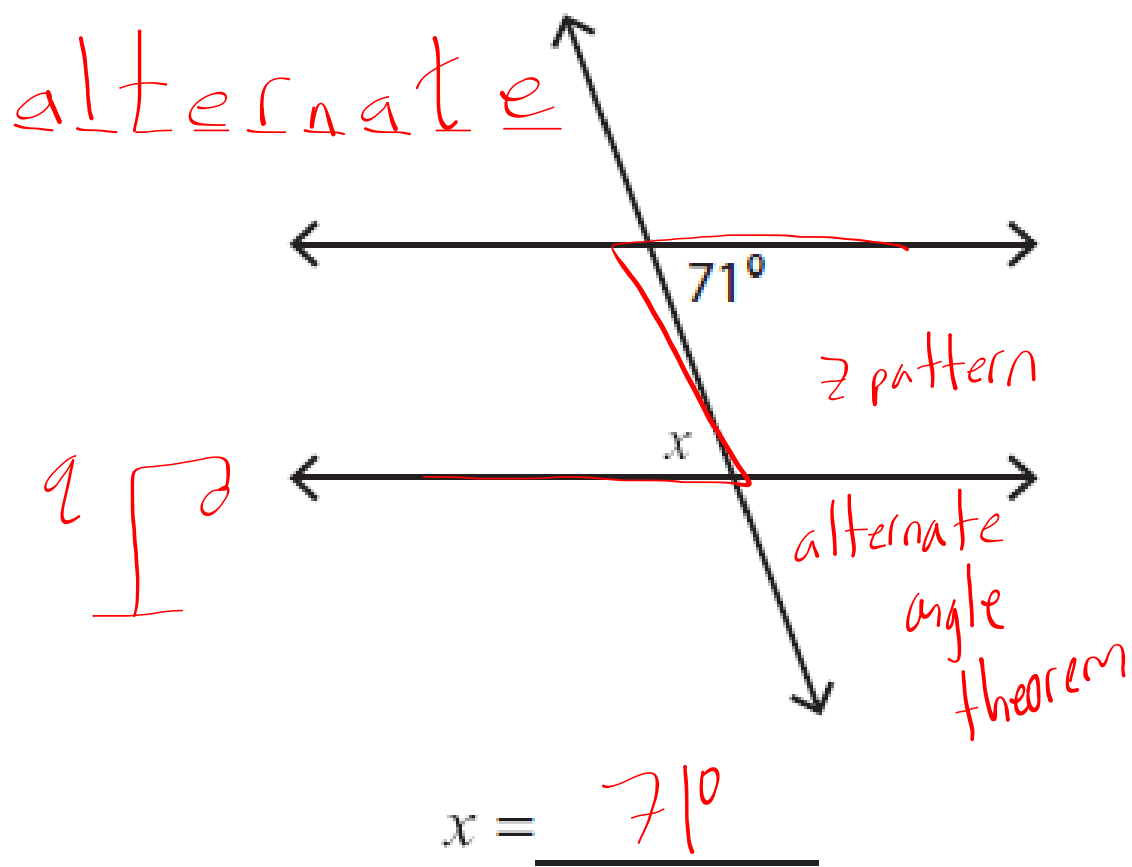








$$x = \underline{55^\circ}$$



**Chapter 7 - Congruence and Similarity in Triangles**

- Definition Match-Up – Match words at the bottom of the page to the definitions/examples in the table:

Word	Definition	Example
similar triangles	Triangles in which corresponding sides are proportional; They are enlargements or reductions of each other.	
scale factor	The value of the ratio of corresponding side lengths in a pair of similar figures.	above, it's 2
angle of elevation	The angle between the horizontal and the line of sight when looking up at an object.	
opposite side	The side that is directly across from a specific acute angle in a right triangle.	
adjacent side	The side that is part of an acute angle in a right triangle, but is not the hypotenuse.	

trigonometry	The branch of mathematics that deals with the properties of triangles and calculations based on these properties.	
Sine	The ratio of the length of the opposite side to the length of the hypotenuse for either acute angle in a right triangle.	
cosine	The ratio of the length of the adjacent side to the length of the hypotenuse for either acute angle in a right triangle.	
primary trigonometric ratios	The basic ratios of trigonometry (Sine, Cosine, and Tangent).	
inverse	The reverse of an original statement.	
angle of depression	The angle between the horizontal and the line of sight when looking down at an object.	