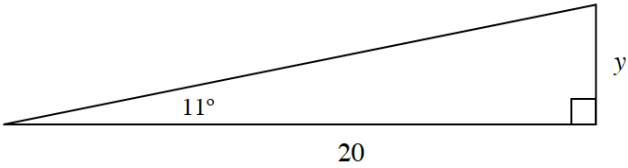


Lesson: 3.2.2 Connecting Slope Ratios to Specific Angles

3-78. What do you know about this triangle? How does it relate to other triangles you have seen? Use any information you have to solve for y .



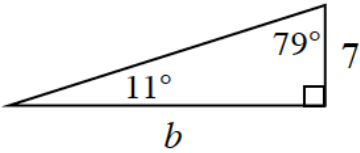
3-79. For each triangle below, determine the missing angle measure or side length. Use your work from Lesson 3.2.1 to help you.

<p>A.</p>	<p>B.</p>
<p>C.</p>	<p>D.</p>
<p>E.</p>	<p>F.</p>

3-80.

Sheila says the triangle in part (f) of problem 3-79 is the same as her drawing at right.

a. Do you agree? Use tracing paper to convince yourself of your conclusion.

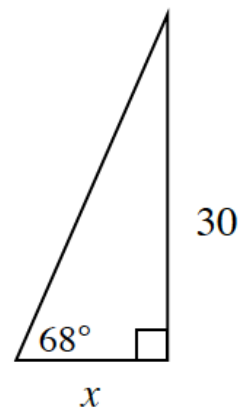


b. Use what you know about the slope ratio of 11° to determine the slope ratio for 79° .

c. What is the relationship of 11° and 79° ? What is the relationship between their slope ratios?

3-81. For what other angles can you determine the slope ratios based on the work you did in Lesson 3.2.1?

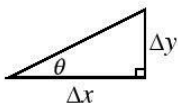
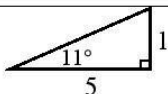
For example, since you know the slope ratio for 22° , what other angle do you know the slope ratio for? (Use tracing paper to determine a slope ratio for the complement of each slope angle you know. Use tracing paper to help reorient the triangle if necessary.)



Use this information to determine the value of x in the diagram at right.

Δ

Trig Table Graphic Organizer

Angle	Slope triangle	Approximate slope ratio as a fraction and a decimal
θ°		$\frac{\Delta y}{\Delta x}$
0°		
8°		
11°		$\frac{1}{5} = 0.2$
18°		
22°		
45°		
55°		
68°		
70°		
72°		
79°		
83°		
84°		
89°		

Note: Angle measures are rounded to the nearest degree.