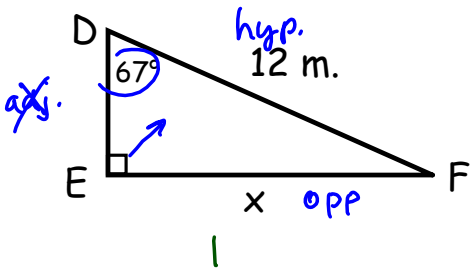
Warm-up 2-11

Find the length of $\overline{EF}$:



SOH CAH TOA

$(12)\sin(67°) = \frac{x}{12}(12)$

$12\sin(67°) = x$

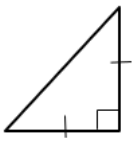
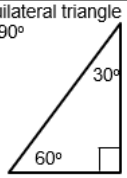
$12(0.92) = x$

$11.04\text{ m} = x$

I can use trigonometric ratios and the Pythagorean Theorem to solve right triangles.

G6-1 I can use the Pythagorean Theorem:

G6-2 I can find the side lengths of special right triangles:

Warm-up / G6-2	isosceles right triangle 45°-45°-90°	half an equilateral triangle 30°-60°-90°
		

G6-3 I can Label the sides of a right triangle and write the trig ratio.

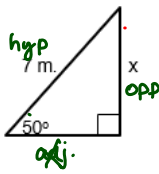
G6-4 I understand that by similarity, side ratios in right triangles are properties of the angles in the triangle.

G6-5 I can use trigonometry to find missing side lengths or angles.

Warm-up

Steps:

1. Label the sides
2. Write the equation
3. Solve for x

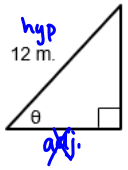


SOH CAH TOA

$(7)\sin(50°) = \frac{x}{7}(7)$

$(7)\sin(50°) = x$

$5.36\text{ m} = x$



$\sin^{-1}\left(\frac{9}{12}\right) = \theta$

$48.59° = \theta$

G6-5

TO FIND AN ANGLE:

$\sin^{-1}\left(\frac{opp}{hyp}\right) = \theta$ $\cos^{-1}\left(\frac{adj}{hyp}\right) = \theta$ $\tan^{-1}\left(\frac{opp}{adj}\right) = \theta$

arc sin

G6-6 I can apply trig ratios and the Pythagorean theorem.

Warm-up ****G6-7 I can use the law of sines to find missing side lengths in any triangle.