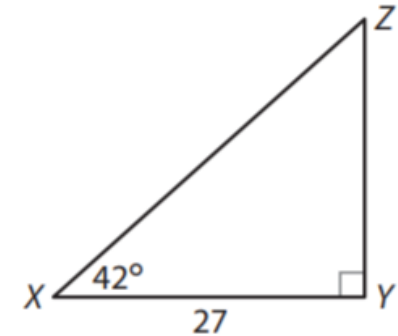


## Warm UP

3/30/23 & 3/31/23

1. Melissa has calculated the length of  $\overline{XZ}$  in  $\triangle XYZ$ . Explain why Melissa's answer must be incorrect. Identify and correct her error.

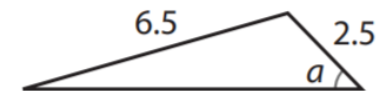


$$\cos X = \frac{XZ}{XY}$$

$$XZ = XY \cos X$$

$$XZ = 27 \cos 42^\circ \approx 20.1$$

2. A student uses the triangle shown to calculate  $a$ . Explain the student's error.



$$a = \tan^{-1} \left( \frac{6.5}{2.5} \right) = \tan^{-1} 2.6$$
$$a = 69.0^\circ$$