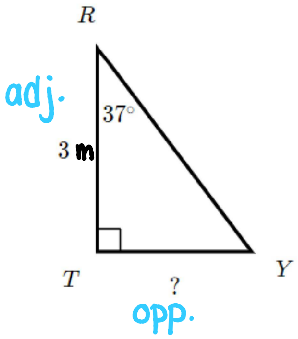
2.2 Side Lengths

FMP 10 2.2 Trigonometry: Calculating Side Lengths Name: _____

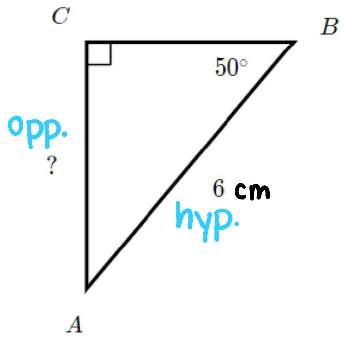
Using trigonometric ratios, determine the unknown side length. SOH CAH TOA



$3 \cdot \tan 37° = \frac{x}{3} \cdot 3$

$3\tan 37° = x$

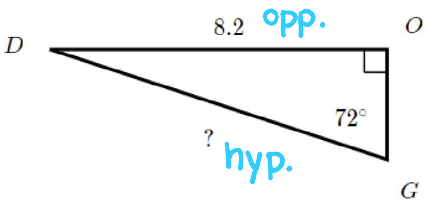
$x \doteq 2.3 \text{ m}$



$6 \cdot \sin 50° = \frac{x}{6} \cdot 6$

$6\sin 50° = x$

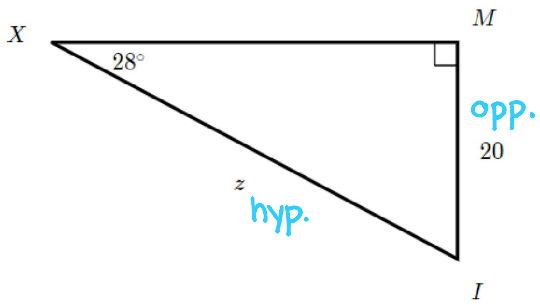
$x = 4.6 \text{ cm}$



$\sin 72° = \frac{8.2}{x}$

$x = \frac{8.2}{\sin 72}$

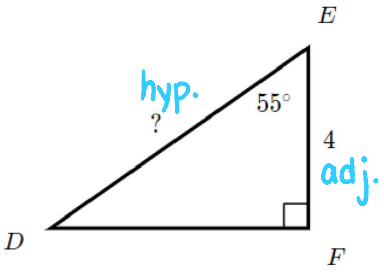
$x \doteq 8.6$



$\sin 28 = \frac{20}{z}$

$z = \frac{20}{\sin 28}$

$z \doteq 42.6$



$\cos 55 = \frac{4}{x}$

$x = \frac{4}{\cos 55}$

$x = 6.9737...$

$x \doteq 7.0$