You may have thought that, because the lengths of the two sides are involved, and they are opposite and adjacent to the 40° angle, that somehow cotangent was involved in the answer. However, cotangent is not useful in this problem, because it would give you a ratio with the two variables. Instead, you need to use cosine to find *x* and sine to find *y*:

$$\cos 40^\circ = \frac{x}{100} \text{ and } \sin 40^\circ = \frac{y}{100}$$

Solve for *x* and *y*, add the results and use a calculator to get a numerical value.