Activity 1: find trigonometric functions

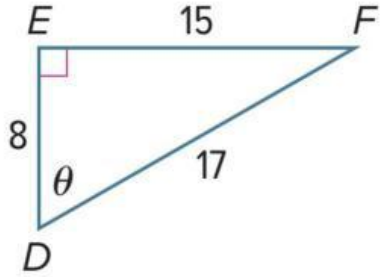
Check

Find the exact values of the six trigonometric functions for angle θ.

$\sin\theta =$ ____ $\cos\theta =$ ____

$\tan\theta =$ ____ $\csc\theta =$ ____

$\sec\theta =$ ____ $\cot\theta =$ ____



sine: $\sin\theta = \frac{\text{opp}}{\text{hyp}}$ **cosecant**: $\csc\theta = \frac{\text{hyp}}{\text{opp}}$

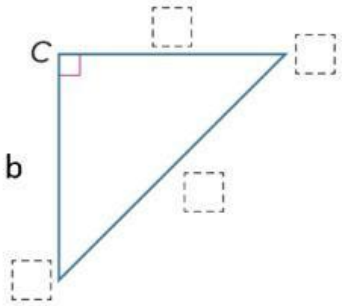
cosine: $\cos\theta = \frac{\text{adj}}{\text{hyp}}$ **secant**: $\sec\theta = \frac{\text{hyp}}{\text{adj}}$

tangent: $\tan\theta = \frac{\text{opp}}{\text{adj}}$ **cotangent**: $\cot\theta = \frac{\text{adj}}{\text{opp}}$

Activity 2: find trigonometric ratios

Check

If $\sec B = \frac{11}{3}$, find the exact values of the five remaining trigonometric functions for B.



Step 1 Use the given information to draw a right triangle. Label the sides and vertices.

Step 2 Use the Pythagorean Theorem to find b

b =

b = or

$\sin B =$ ____, $\cos B =$ ____, $\tan B =$ ____, $\csc B =$ ____, $\cot B =$ ____

or _____ or _____

LIVEWORKSHEETS