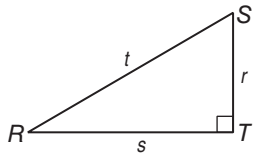
NAME _____ DATE _____ PERIOD _____

# 8-4 Skills Practice

## Trigonometry

**Find sin $R$, cos $R$, tan $R$, sin $S$, cos $S$, and tan $S$. Express each ratio as a fraction and as a decimal to the nearest hundredth.**




**1.** $r = 16$, $s = 30$, $t = 34$

$\sin R = \frac{8}{17} \approx 0.47$;
$\cos R = \frac{15}{17} \approx 0.88$;
$\tan R = \frac{8}{15} \approx 0.53$;
$\sin S = \frac{15}{17} \approx 0.88$;
$\cos S = \frac{8}{17} \approx 0.47$;
$\tan S = \frac{15}{8} \approx 1.88$

**2.** $r = 10$, $s = 24$, $t = 26$

$\sin R = \frac{5}{13} \approx 0.38$;
$\cos R = \frac{12}{13} \approx 0.92$;
$\tan R = \frac{5}{12} \approx 0.42$;
$\sin S = \frac{12}{13} \approx 0.92$;
$\cos S = \frac{5}{13} \approx 0.38$;
$\tan S = \frac{12}{5} \approx 2.4$

**Use a special right triangle to express each trigonometric ratio as a fraction and as a decimal to the nearest hundredth if necessary.**

**3.** sin 30° $\frac{1}{2}$; 0.5

**4.** tan 45° 1

**5.** cos 60° $\frac{1}{2}$; 0.5

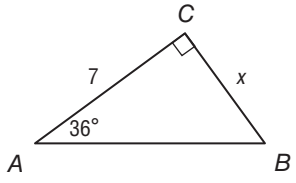
**6.** sin 60° $\frac{\sqrt{3}}{2}$; 0.87

**7.** tan 30° $\frac{\sqrt{3}}{3}$; 0.58

**8.** cos 45° $\frac{\sqrt{2}}{2}$; 0.71

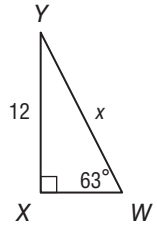
**Find $x$. Round to the nearest hundredth if necessary.**

**9.**



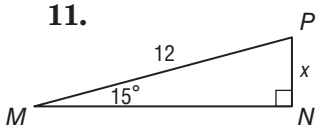

$x = 5.09$

**10.**




$x = 13.47$

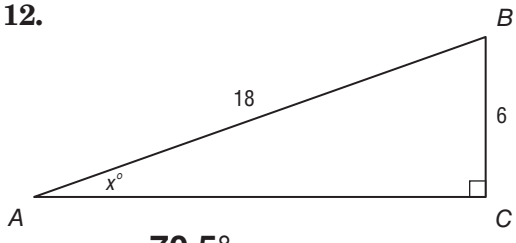
**11.**




$x = 3.11$

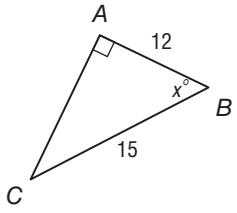
**Use a calculator to find the measure of $\angle B$ to the nearest tenth.**

**12.**



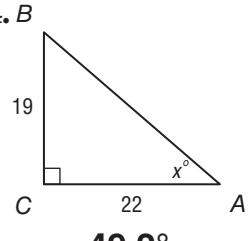

70.5°

**13.**




36.9°

**14.**




49.2°

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