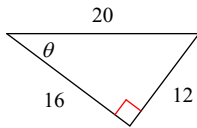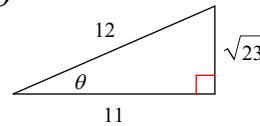Secondary Math 2   Name_____ Period_____

11.3 HW - Trigonometric Ratios, Finding Missing Angle Measures

Label the sides as opposite, adjacent, and hypotenuse. Find the exact value of the trigonometric function indicated. You may need to use the Pythagorean Theorem to find the length of the unlabeled side. Express your answers as simplified fractions with simplest radical form.
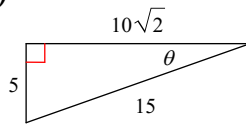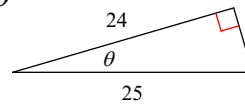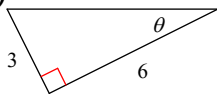
1) $\sin \theta$

20, θ, 16, 12

2) $\cos \theta$

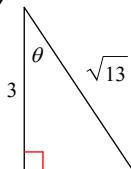12, $\sqrt{23}$, θ, 11

3) $\tan \theta$

$10\sqrt{2}$, θ, 5, 15

4) $\tan \theta$

24, θ, 25

5) $\cos \theta$

θ, 3, 6

6) $\tan \theta$

4, 10, θ

7) $\sin \theta$

θ, $\sqrt{13}$, 3

8) $\cos \theta$

$2\sqrt{5}$, θ, 4
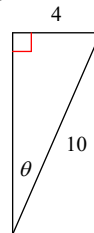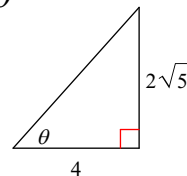
Label the sides with numbers as opposite, adjacent, or hypotenuse. Write an equation involving sine, cosine, or tangent. Then find the measure of angle, θ, to the nearest tenth of a degree.
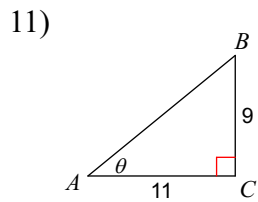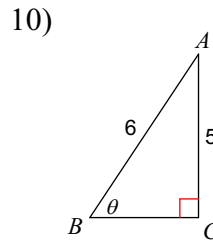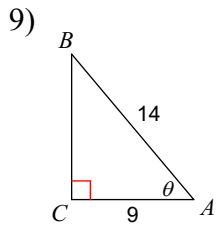
9)

10)

11)

12)

13)

14)

15)

16)

17)

18)
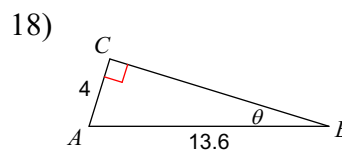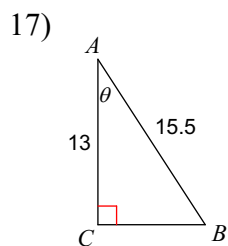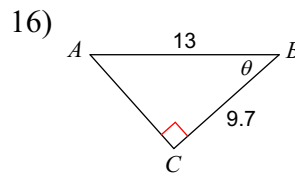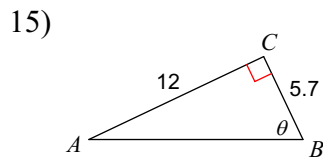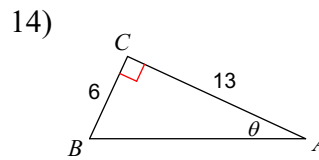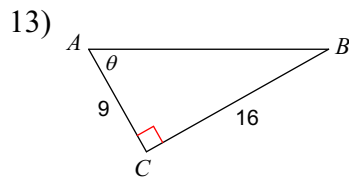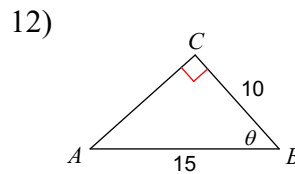
Answers to 11.3 HW - Trigonometric Ratios, Finding Missing Angle Measures

1) $\dfrac{3}{5}$

2) $\dfrac{11}{12}$

3) $\dfrac{\sqrt{2}}{4}$

4) $\dfrac{7}{24}$

5) $\dfrac{2\sqrt{5}}{5}$

6) $\dfrac{2\sqrt{21}}{21}$

7) $\dfrac{2\sqrt{13}}{13}$

8) $\dfrac{2}{3}$

9) $50°$

10) $56.4°$

11) $39.3°$

12) $48.2°$

13) $60.6°$

14) $24.8°$

15) $64.6°$

16) $41.7°$

17) $33°$

18) $17.1°$