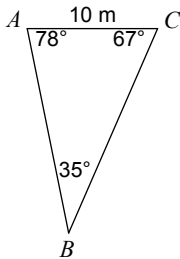


Midterm Review #5 (Trig Part 2)

Date _____ Period _____

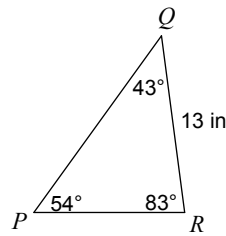
Solve each triangle. Round your answers to the nearest tenth.

1)



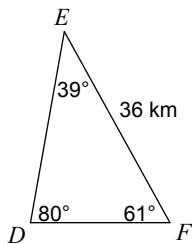
- A) $a = 17.1$ m, $c = 13$ m
 B) $a = 17.1$ m, $c = 16$ m
 C) $a = 12$ m, $c = 13$ m
 D) $a = 12$ m, $c = 16$ m

2)



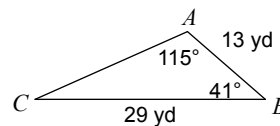
- A) $r = 19$ in, $q = 11$ in
 B) $r = 15.9$ in, $q = 11$ in
 C) $r = 14$ in, $q = 8$ in
 D) $r = 15.9$ in, $q = 8$ in

3)



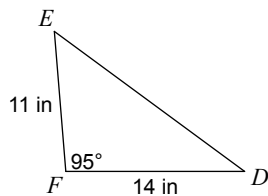
- A) $f = 32$ km, $e = 23$ km
 B) $f = 31$ km, $e = 23$ km
 C) $f = 32$ km, $e = 27$ km
 D) $f = 32$ km, $e = 22$ km

4)



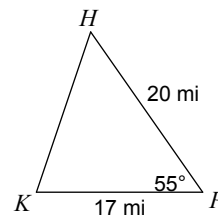
- A) $m\angle C = 24^\circ$, $b = 18$ yd
 B) $m\angle C = 24^\circ$, $b = 24$ yd
 C) $m\angle C = 24^\circ$, $b = 22$ yd
 D) $m\angle C = 24^\circ$, $b = 21$ yd

5)



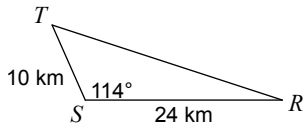
- A) $m\angle D = 36.1^\circ$, $m\angle E = 48.9^\circ$, $f = 18.5$ in
 B) $m\angle D = 36.1^\circ$, $m\angle E = 48.9^\circ$, $f = 20.4$ in
 C) $m\angle D = 32.7^\circ$, $m\angle E = 52.3^\circ$, $f = 18.5$ in
 D) $m\angle D = 36.1^\circ$, $m\angle E = 48.9^\circ$, $f = 21.5$ in

6)



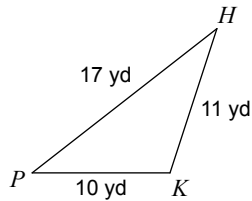
- A) $m\angle K = 64.2^\circ$, $m\angle H = 60.8^\circ$, $p = 17.3$ mi
 B) $m\angle K = 62.1^\circ$, $m\angle H = 62.9^\circ$, $p = 17.3$ mi
 C) $m\angle K = 71.4^\circ$, $m\angle H = 53.6^\circ$, $p = 17.3$ mi
 D) $m\angle K = 71.4^\circ$, $m\angle H = 53.6^\circ$, $p = 16.1$ mi

7)



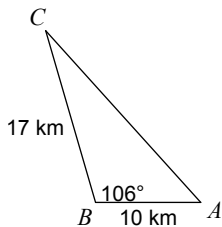
- A) $m\angle T = 48^\circ$, $m\angle R = 18^\circ$, $s = 25.8$ km
- B) $m\angle T = 48^\circ$, $m\angle R = 18^\circ$, $s = 31.4$ km
- C) $m\angle T = 49.5^\circ$, $m\angle R = 16.5^\circ$, $s = 29.5$ km
- D) $m\angle T = 48^\circ$, $m\angle R = 18^\circ$, $s = 29.5$ km

8)



- A) $m\angle H = 27^\circ$, $m\angle P = 32^\circ$, $m\angle K = 121^\circ$
- B) $m\angle H = 33^\circ$, $m\angle P = 45^\circ$, $m\angle K = 102^\circ$
- C) $m\angle H = 34^\circ$, $m\angle P = 38^\circ$, $m\angle K = 108^\circ$
- D) $m\angle H = 35^\circ$, $m\angle P = 40^\circ$, $m\angle K = 105^\circ$

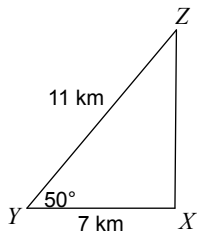
9)



- A) $m\angle C = 24.4^\circ$, $m\angle A = 49.6^\circ$, $b = 18.6$ km
- B) $m\angle C = 26^\circ$, $m\angle A = 48^\circ$, $b = 22$ km
- C) $m\angle C = 29.9^\circ$, $m\angle A = 44.1^\circ$, $b = 22$ km
- D) $m\angle C = 27.2^\circ$, $m\angle A = 46.8^\circ$, $b = 18.6$ km

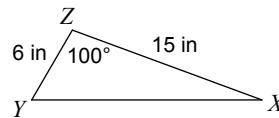
Find the area of each triangle to the nearest tenth.

10)



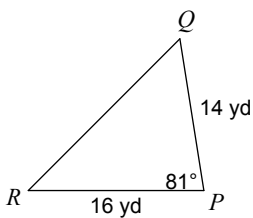
- A) 24.7 km^2
- B) 29.5 km^2
- C) 31.5 km^2
- D) 26 km^2

11)



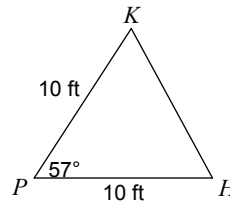
- A) 126.3 in^2
- B) 56.6 in^2
- C) 40.5 in^2
- D) 44.3 in^2

12)



- A) 29.9 yd^2
- B) 124.2 yd^2
- C) 110.6 yd^2
- D) 69.3 yd^2

13)

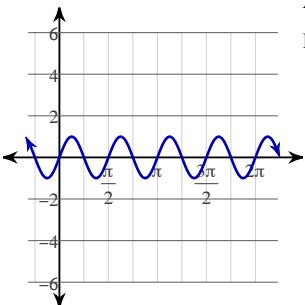


- A) 45.7 ft^2
- B) 41.9 ft^2
- C) 48.6 ft^2
- D) 23.9 ft^2

Using radians, find the amplitude and period of each function. Then graph.

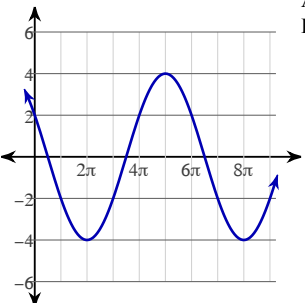
14) $y = 4\sin\left(\frac{\theta}{3} + \frac{5\pi}{6}\right)$

A)



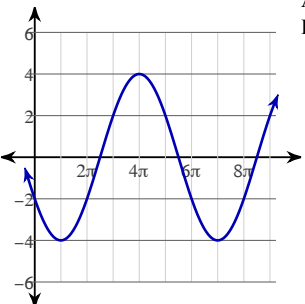
Amplitude: 1
Period: $\frac{\pi}{2}$

B)



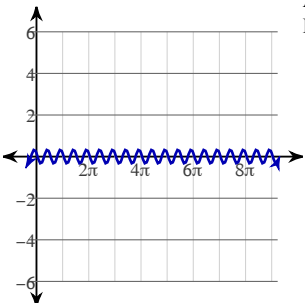
Amplitude: 4
Period: 6π

C)



Amplitude: 4
Period: 6π

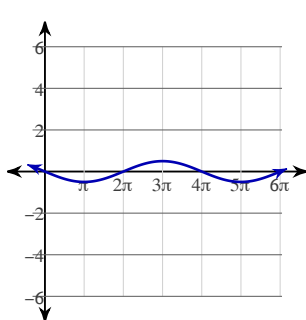
D)



Amplitude: 4
Period: 6π

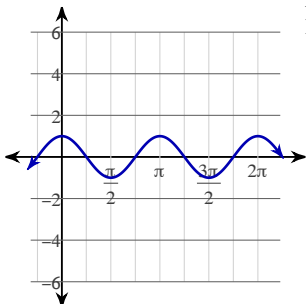
15) $y = \frac{1}{2} \cdot \cos\left(\frac{\theta}{2} + \frac{\pi}{2}\right)$

A)



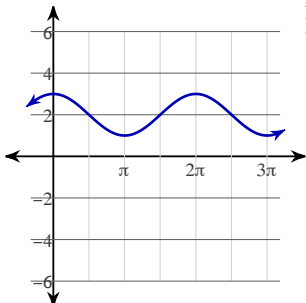
Amplitude: $\frac{1}{2}$
Period: 4π

B)



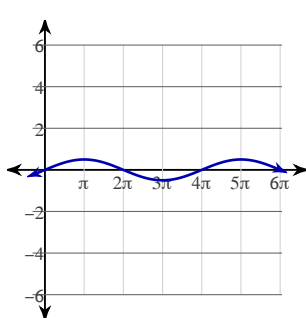
Amplitude: 1
Period: π

C)



Amplitude: 1
Period: 2π

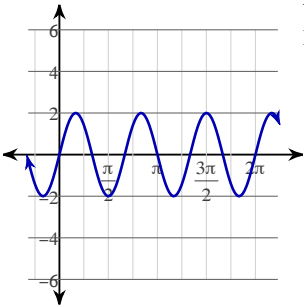
D)



Amplitude: $\frac{1}{2}$
Period: 4π

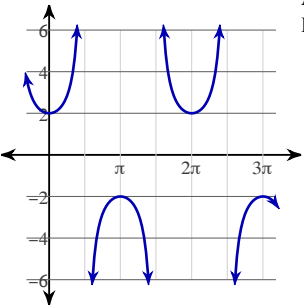
16) $y = 2\sin 3\theta$

A)



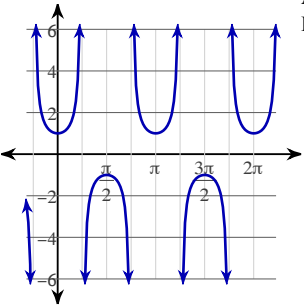
Amplitude: 2
Period: $\frac{2\pi}{3}$

B)



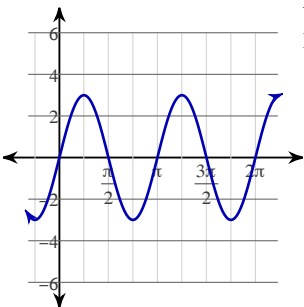
Amplitude: None
Period: 2π

C)



Amplitude: None
Period: π

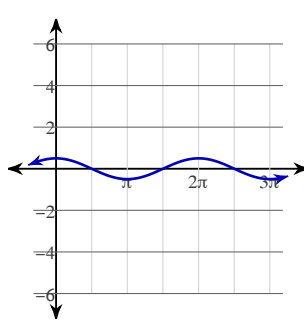
D)



Amplitude: 2
Period: $\frac{2\pi}{3}$

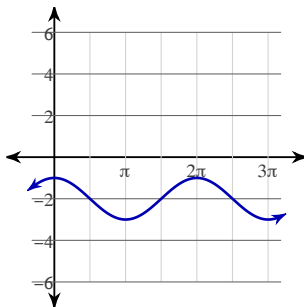
17) $y = 3\cos 4\theta$

A)



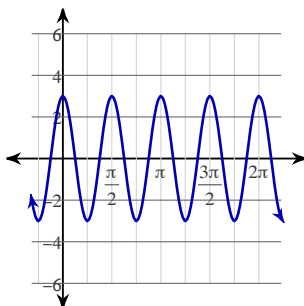
Amplitude: $\frac{1}{2}$
Period: 2π

B)



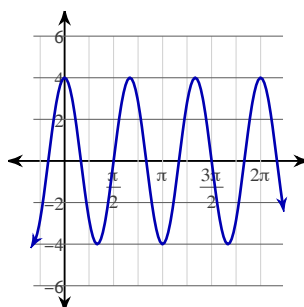
Amplitude: 1
Period: 2π

C)



Amplitude: 3
Period: $\frac{\pi}{2}$

D)



Amplitude: 3
Period: $\frac{\pi}{2}$

Solve each equation for $0 \leq \theta < 2\pi$.

18) $0 = 2 - 4\cos \theta$

A) $\left\{ \frac{3\pi}{2}, \frac{5\pi}{3} \right\}$

B) $\left\{ \frac{\pi}{2}, \frac{5\pi}{3} \right\}$

C) $\left\{ \frac{\pi}{3}, \frac{3\pi}{2} \right\}$

D) $\left\{ \frac{\pi}{3}, \frac{5\pi}{3} \right\}$

19) $\frac{5}{2} = 3 + \frac{1}{2} \cdot \cos \theta$

A) $\left\{ \frac{2\pi}{3}, \frac{4\pi}{3} \right\}$

B) $\{\pi\}$

C) $\left\{ \frac{4\pi}{3} \right\}$

D) No solution.

Answers to Midterm Review #5 (Trig Part 2) (ID: 1)

1) B
5) A
9) B
13) B
17) C

2) B
6) C
10) B
14) B
18) D

3) A
7) D
11) D
15) A
19) B

4) D
8) C
12) C
16) A