

Week 8 Practice for Q2Exam2

Date_____ Period_____

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- 1) How many ways can 4 different cereal boxes be arranged on a store shelf with room for 9 boxes?
- 2) How many ways can 3 cars park in a parking garage that has 12 spots for parking?
- 3) How many different uniform combinations can be made if there are 2 types of helmets, four types of jerseys, and 3 types of shoes?

Find the exact value of each trigonometric function.

4) $\tan 675^\circ$

5) $\sin 45^\circ$

6) $\tan -390^\circ$

7) $\cot 870^\circ$

8) $\csc 630^\circ$

9) $\sin -120^\circ$

10) $\cot -\frac{5\pi}{2}$

11) $\tan -\frac{4\pi}{3}$

12) $\cos \frac{5\pi}{3}$

13) $\cos 0$

14) $\sec \frac{17\pi}{6}$

15) $\sec -\frac{19\pi}{6}$

Use your trig. table and ASTC to find each trig. ratio. Round your answers to the nearest ten-thousandth.

16) $\cos 602^\circ$

17) $\sin 155^\circ$

18) $\sec 1005^\circ$

19) $\csc -1045^\circ$

20) $\csc \frac{17\pi}{6}$

21) $\sin -\frac{19\pi}{9}$

22) $\cot \frac{13\pi}{180}$

23) $\tan \frac{29\pi}{9}$

Convert each degree measure into radians and each radian measure into degrees.

24) $-\frac{8\pi}{3}$

25) $\frac{15\pi}{4}$

26) 220°

27) $\frac{31\pi}{18}$

28) 315°

29) $-\frac{5\pi}{3}$

30) -155°

31) 30°

Find the reference angle.

32) 140°

33) -640°

34) 715°

35) 220°

36) 635°

37) -390°

38) 560°

39) 480°

In each triangle ABC, angle C is a right angle. Find the value of the trig function indicated.

40) Find $\sin A$ if $c = 25$, $a = 15$

41) Find $\sec A$ if $c = 5$, $b = 3$

42) Find $\csc A$ if $a = 6$, $c = 7$

43) Find $\sec A$ if $a = 12$, $b = 16$

44) Find $\sin A$ if $c = 21$, $b = 13$

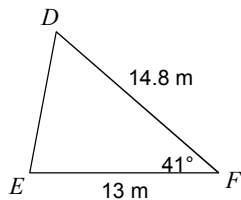
45) Find $\csc A$ if $c = 25$, $a = 20$

46) Find $\cot A$ if $c = 25$, $b = 7$

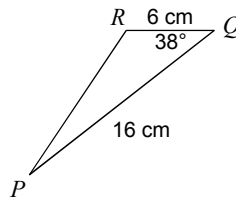
47) Find $\cos A$ if $b = 20$, $a = 15$

Find the area of each triangle to the nearest tenth.

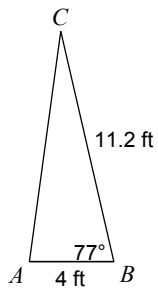
48)



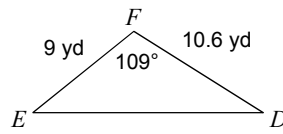
49)



50)

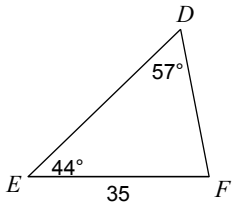


51)

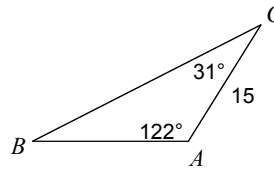


Find each measurement indicated. Round your answers to the nearest tenth.

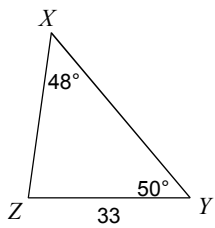
52) Find DF



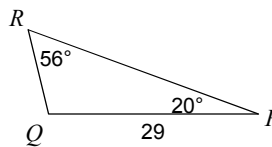
53) Find BC



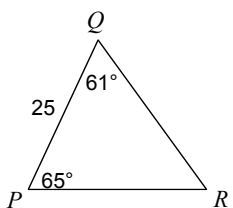
54) Find XZ



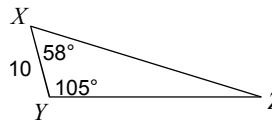
55) Find QR



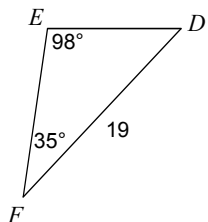
56) Find PR



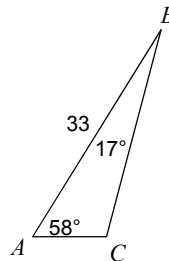
57) Find XZ



58) Find DE



59) Find AC



Answers to Week 8 Practice for Q2Exam2 (ID: 1)

1) The dot next to the choice indicates that it is the answer.

2) The dot next to the choice indicates that it is the answer.

3) The dot next to the choice indicates that it is the answer.

- | | | | |
|-----------------------------|--------------------------|----------------------------|----------------------------|
| 4) -1 | 5) $\frac{\sqrt{2}}{2}$ | 6) $-\frac{\sqrt{3}}{3}$ | 7) $-\sqrt{3}$ |
| 8) -1 | 9) $-\frac{\sqrt{3}}{2}$ | 10) 0 | 11) $-\sqrt{3}$ |
| 12) $\frac{1}{2}$ | 13) 1 | 14) $-\frac{2\sqrt{3}}{3}$ | 15) $-\frac{2\sqrt{3}}{3}$ |
| 16) -0.4695 | 17) 0.4226 | 18) 3.8637 | 19) 1.7434 |
| 20) 2.0000 | 21) -0.3420 | 22) 4.3315 | 23) 0.8391 |
| 24) -480° | 25) 675° | 26) $\frac{11\pi}{9}$ | 27) 310° |
| 28) $\frac{7\pi}{4}$ | 29) -300° | 30) $-\frac{31\pi}{36}$ | 31) $\frac{\pi}{6}$ |
| 32) 40° | 33) 80° | 34) 5° | 35) 40° |
| 36) 85° | 37) 30° | 38) 20° | 39) 60° |
| 40) $\frac{3}{5}$ | 41) $\frac{5}{3}$ | 42) $\frac{7}{6}$ | 43) $\frac{5}{4}$ |
| 44) $\frac{4\sqrt{17}}{21}$ | 45) $\frac{5}{4}$ | 46) $\frac{7}{24}$ | 47) $\frac{4}{5}$ |
| 48) 63.1 m ² | 49) 29.6 cm ² | 50) 21.8 ft ² | 51) 45.1 yd ² |
| 52) 29 | 53) 28 | 54) 34 | 55) 12 |
| 56) 27 | 57) 33 | 58) 11 | 59) 10 |