Name: _____ **Date:** _____

1. What is the amplitude of the graph defined by $y = 2\cos\frac{x}{2}$?

   A. 2 B. $\frac{1}{2}$ C. 1 D. 4

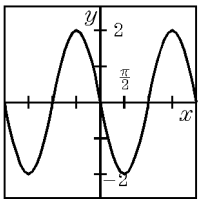
2. For the equation $y = -2\cos 2\left(x - \frac{\pi}{2}\right) - 1$ determine the amplitude.

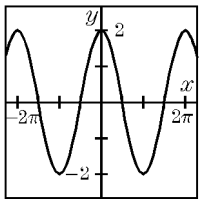
   A. 1 B. 2 C. -1 D. 0

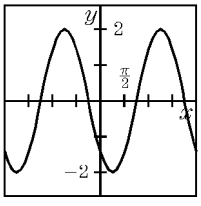
3. What is the amplitude of the function $y = \pi \sin 4x - 3$?

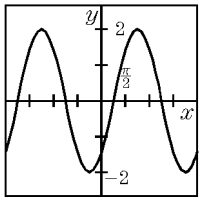
   A. $\frac{\pi}{2}$ B. π C. 2π D. 4π

4. Which of the graphs shown is the graph of $y = -2\sin x$?

   A.
   

   B.
   

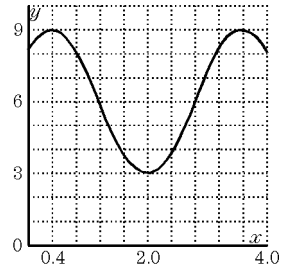
   C.
   

   D.
   

5. Find the amplitude for the sinusoidal graph.

   A. 9 B. 3

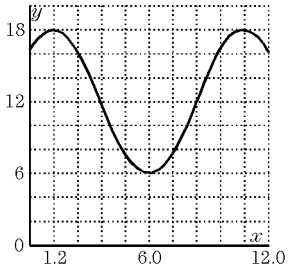
   C. 1.5 D. 0

6. Find the amplitude for the sinusoidal graph.

   A. 18 B. 12

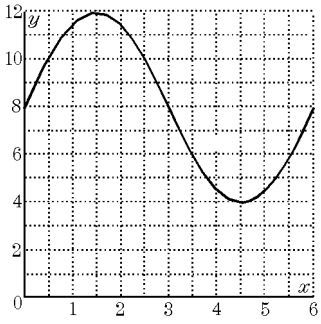
   C. 6 D. 0

7. The graph shown has the form $y = a\sin x + d$. What is the amplitude?

   A. 12 B. 8

   C. 4 D. ± 4

8. Which of the following ratios is the tangent of an angle?

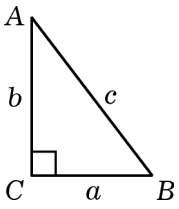
A. $\frac{\text{hypotenuse}}{\text{adjacent}}$ B. $\frac{\text{adjacent}}{\text{hypotenuse}}$

C. $\frac{\text{hypotenuse}}{\text{opposite}}$ D. $\frac{\text{opposite}}{\text{adjacent}}$

9. Given the triangle shown, which of the following is true?

A. $\sin B = \frac{c}{b}$ B. $\cos A = \frac{c}{b}$

C. $\tan A = \frac{b}{a}$ D. $\sin B = \frac{b}{c}$



10. Given the triangle shown, which of the following is true?

A. $\sin B = \frac{c}{b}$ B. $\cos A = \frac{b}{c}$

C. $\tan A = \frac{b}{a}$ D. $\sin B = \frac{a}{c}$

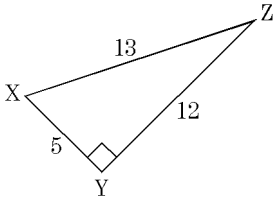
11. Which of the following statements is *incorrect* for $\triangle XYZ$?

A. $\sin Z = \frac{5}{13}$

B. $YZ = 12$

C. $\tan Y = \frac{5}{12}$

D. $\cos X = \frac{5}{13}$

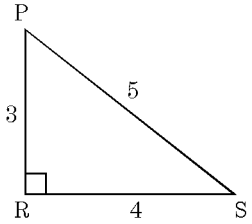


12. Which of the following statements is *incorrect* for the given diagram?

A. $\cos S = \frac{4}{5}$ B. $\tan P = \frac{4}{3}$

C. $\tan S = \frac{5}{4}$

D. $\triangle PRS$ is a right triangle



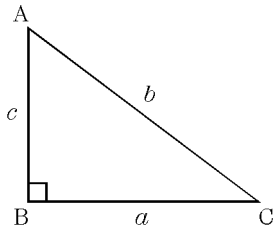
13. Which of the following statements is *incorrect* for $\triangle ABC$?

A. $\sin A = \frac{c}{b}$

B. $\tan A = \frac{a}{c}$

C. $a^2 + c^2 = b^2$

D. $\tan C = \frac{c}{a}$



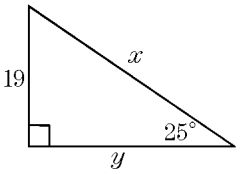
14. Which of the following statements is *incorrect*?

A. $\sin 25° = \frac{19}{x}$

B. $\cos 25° = \frac{19}{x}$

C. $\tan 25° = \frac{19}{y}$

D. $361 + y^2 = x^2$



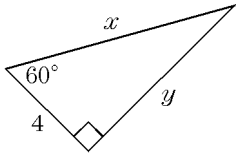
15. Which of the following statements is *incorrect*?

A. $x = 8$

B. $\sin 30^\circ = \frac{4}{x}$

C. $\sin 60^\circ = \frac{4}{x}$

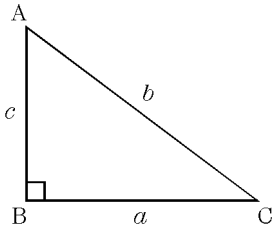
D. $16 = x^2 - y^2$



16. Express $\sin A$ as a ratio of the variables given in $\triangle ABC$.

A. $\frac{c}{a}$ B. $\frac{a}{b}$

C. $\frac{b}{a}$ D. $\frac{c}{b}$



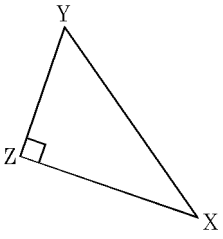
17. Express $\tan A$ as a ratio of the variables given in $\triangle ABC$.

A. $\frac{a}{c}$ B. $\frac{a}{b}$ C. $\frac{b}{a}$ D. $\frac{c}{b}$

18. Express $\sin X$ as a ratio of the lengths of the sides of $\triangle XYZ$.

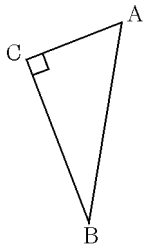
A. $\frac{XY}{XZ}$ B. $\frac{XY}{YZ}$

C. $\frac{XZ}{YZ}$ D. $\frac{YZ}{XY}$



19. Express $\sin A$ as a ratio of the lengths of the sides of $\triangle ABC$.

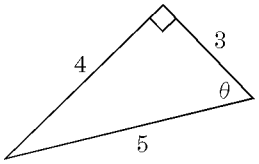
A. $\frac{BC}{AC}$ B. $\frac{BC}{AB}$ C. $\frac{AC}{CB}$ D. $\frac{AB}{AC}$



20. Given the following triangle, $\sin\theta =$ _____.

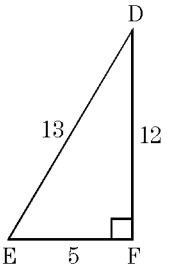
A. $\frac{3}{4}$ B. $\frac{4}{5}$

C. $\frac{4}{3}$ D. $\frac{5}{3}$



21. Given the triangle *EFD*, what is $\sin E$?

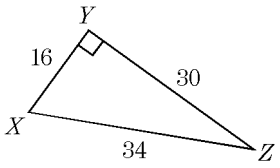
A. $\frac{5}{13}$ B. $\frac{12}{13}$ C. $\frac{12}{5}$ D. $\frac{13}{5}$



22. Given the triangle XYZ, what is $\cos Z$?

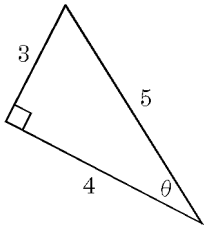
A. $\frac{8}{17}$ B. $\frac{15}{17}$

C. $\frac{17}{15}$ D. $\frac{17}{8}$



23. Given the following triangle, $\cos\theta =$ _____.

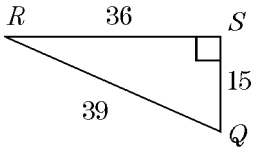
A. $\frac{3}{5}$ B. $\frac{3}{4}$ C. $\frac{4}{5}$ D. $\frac{5}{3}$



24. Given the following triangle RSQ, find $\tan Q$.

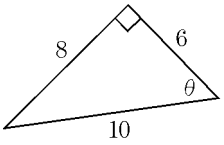
A. $\frac{5}{12}$ B. $\frac{13}{12}$

C. $\frac{12}{5}$ D. $\frac{13}{5}$



25. Given the following triangle, $\tan\theta =$ _____

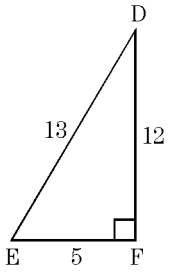
A. $\frac{3}{4}$ B. $\frac{4}{3}$ C. $\frac{4}{5}$ D. $\frac{5}{3}$



26. In $\triangle DEF$, which of the following is equal to $\frac{5}{12}$?

A. $\sin D$ B. $\sin E$

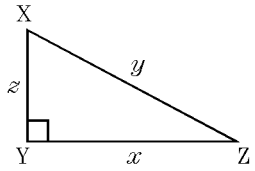
C. $\tan D$ D. $\tan E$



27. In $\triangle XYZ$, what trigonometric function is given by $\frac{x}{z}$?

A. $\sin X$ B. $\cos X$

C. $\cos Z$ D. $\tan X$



28. If $\sin\angle A = \frac{3}{5}$ and $\cos\angle A = \frac{4}{5}$, what is $\tan\angle A$?

A. $\frac{4}{3}$ B. $\frac{3}{4}$ C. $\frac{7}{5}$ D. $\frac{1}{5}$

29. If $\sin\angle B = \frac{4}{5}$ and $\cos\angle B = \frac{3}{5}$, what is $\tan\angle B$?

A. $\frac{4}{3}$ B. $\frac{3}{4}$ C. $\frac{7}{5}$ D. $\frac{1}{5}$

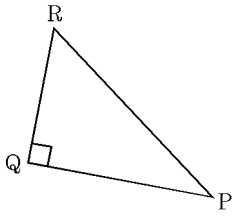
30. The sides of a right triangle are 5, 12, and 13. The sine of the smallest angle is

A. $\frac{5}{12}$ B. $\frac{5}{13}$ C. $\frac{12}{13}$ D. $\frac{13}{5}$

31. In a right triangle with sides 8, 15, and 17, what is the cosine of the smallest angle?

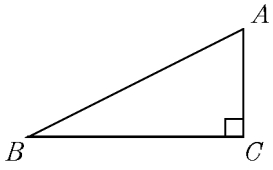
A. $\frac{15}{17}$ B. $\frac{8}{17}$ C. $\frac{8}{15}$ D. $\frac{17}{15}$

32. In the triangle below, $\sin P = \frac{5}{13}$. Find $\cos R$.



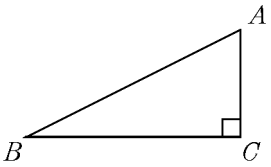
A. $\frac{12}{13}$ B. $\frac{5}{12}$ C. $\frac{13}{12}$ D. $\frac{5}{13}$

33. In the triangle below, $\sin B = \frac{8}{17}$. Find $\cos A$.



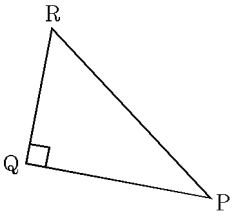
A. $\frac{8}{17}$ B. $\frac{17}{15}$ C. $\frac{8}{15}$ D. $\frac{15}{17}$

34. In the triangle below, $\cos A = \frac{7}{25}$. Find $\sin B$.



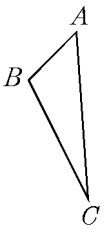
A. $\frac{25}{24}$ B. $\frac{24}{25}$ C. $\frac{7}{25}$ D. $\frac{7}{24}$

35. In the triangle below, $\cos R = \frac{3}{5}$. Find $\sin P$.



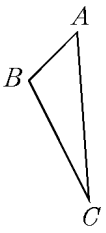
A. $\frac{3}{4}$ B. $\frac{3}{5}$ C. $\frac{4}{5}$ D. $\frac{5}{4}$

36. For the triangle shown, $m\angle B = 90$ and $\cos C = \frac{15}{17}$. What is $\cos A$?



A. $\frac{15}{8}$ B. $\frac{8}{15}$ C. $\frac{15}{17}$ D. $\frac{8}{17}$

37. For the triangle shown, $m\angle B = 90$ and $\sin C = \frac{7}{25}$. What is $\sin A$?

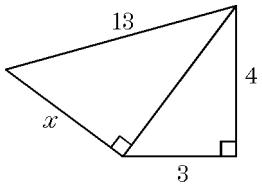


A. $\frac{24}{7}$ B. $\frac{7}{24}$ C. $\frac{24}{25}$ D. $\frac{7}{25}$

38. Find the length of side x.

A. 10 B. 12

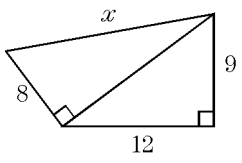
C. 144 D. 194



39. Find the length of side x.

A. 16 B. 17

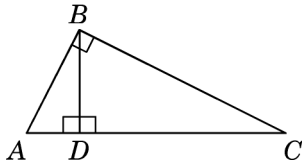
C. 19 D. 21



40. In $\triangle ABC$, $AC = 10$, $BC = 8$, $m\angle B = 90^\circ$ and $m\angle BDA = 90^\circ$. How long is $\overline{AD}$?

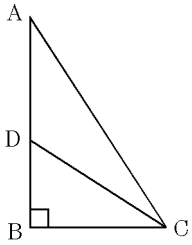
A. 3.6 B. 4

C. 5.4 D. 9



41. In the diagram, $AB = 15$, $DB = 6$, and $BC = 8$. If $m\angle B = 90^\circ$, what is the perimeter of triangle ADC?

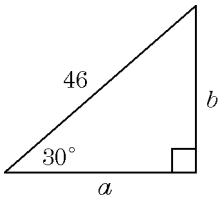
A. 24 B. 36 C. 42 D. 60



42. Find b.

A. 92 B. 76

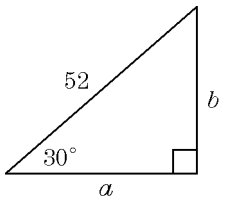
C. 23 D. 16



43. Find b.

A. 16 B. 26

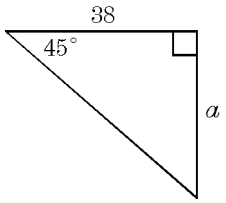
C. 76 D. 104



44. Find a.

A. 26.9 B. 38

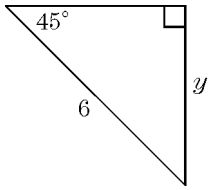
C. 45 D. 53.7



45. Find the exact value of y.

A. $\sqrt{2}$ B. 3

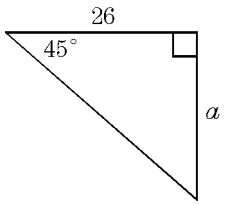
C. $2\sqrt{3}$ D. $3\sqrt{2}$



46. Find a.

A. 18.4 B. 26

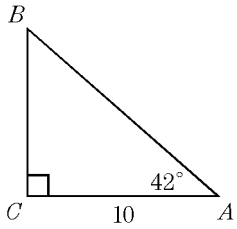
C. 45 D. 52



47. What is the length of side $\overline{BC}$ to one decimal place?

A. 6.7 B. 7.4

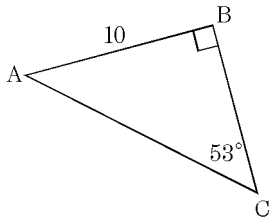
C. 9.0 D. 14.9



48. What is the length of side $\overline{CB}$ to one decimal place?

A. 7.5 B. 8.0

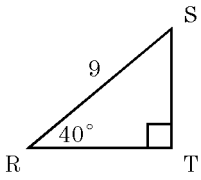
C. 10.1 D. 12.3



49. In triangle RST, $RS = 9$ and $m\angle R = 40°$, find the length of $\overline{ST}$ to the nearest tenth.

A. 5.8 B. 14.1

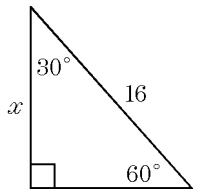
C. 31 D. 4



50. Approximate x to the nearest tenth.

A. 8 B. 10.7

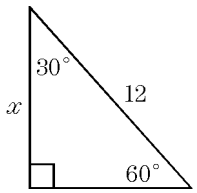
C. 11.4 D. 13.9



51. Approximate x to the nearest tenth.

A. 8 B. 9.6

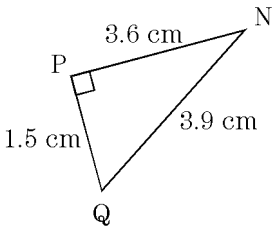
C. 10.4 D. 11.1



52. In $\triangle NPQ$, calculate $\angle N$ to the nearest degree.

A. 23° B. 33°

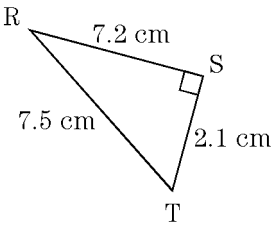
C. 65° D. 67°



53. In $\triangle RST$, calculate $\angle R$ to the nearest degree.

A. 16° B. 26°

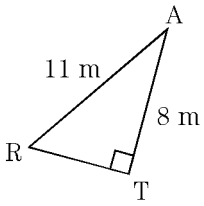
C. 73° D. 74°



54. In the triangle shown, determine $\angle A$ to the nearest degree.

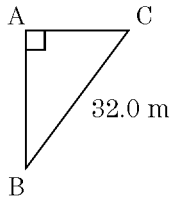
A. 32° B. 36°

C. 43° D. 54°



55. In $\triangle ABC$, calculate $\angle C$ to the nearest degree given that $AC = 23.0$ m.

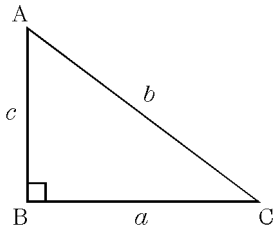
A. 36° B. 44° C. 46° D. 54°



56. To the nearest degree, find the measure of $\angle A$ given $a = 6$ and $b = 11$.

A. 29° B. 33°

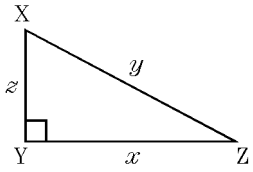
C. 36° D. 56°



57. To the nearest degree, find the measure of $\angle Z$ given $z = 4$ and $x = 15$.

A. 11° B. 15°

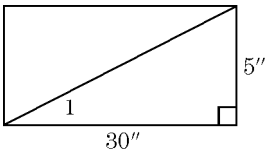
C. 16° D. 17°



58. Two sides of a rectangle are 5″ and 30″. What is the approximate measure of $\angle 1$?

A. 6° B. 8.5°

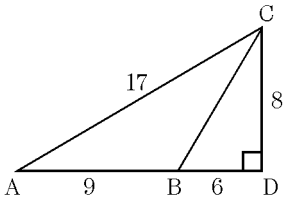
C. 9.16° D. 9.46°



59. What is the measure of $\angle BCD$ to the nearest degree?

A. 27° B. 37°

C. 43° D. 54°



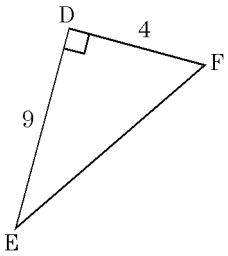
60. Which trigonometric ratio can be used to find the measure of $\angle F$ using only the lengths shown?

A. cosine only

B. tangent only

C. all of the ratios above

D. no ratios



Optional Quiz Review Trig Day 1-4 Fall 2015 12/07/2015

1.
Answer: A
Objective: F.TF.5

2.
Answer: B
Objective: F.TF.5

3.
Answer: B
Objective: F.TF.5

4.
Answer: A
Objective: F.IF.7E

5.
Answer: B
Objective: F.IF.4

6.
Answer: C
Objective: F.IF.4

7.
Answer: C
Objective: F.IF.4

8.
Answer: D
Objective: G.SRT.6

9.
Answer: D
Objective: G.SRT.6

10.
Answer: B
Objective: G.SRT.6

11.
Answer: C
Objective: G.SRT.6

12.
Answer: C
Objective: G.SRT.6

13.
Answer: A
Objective: G.SRT.6

14.
Answer: B
Objective: G.SRT.6

15.
Answer: C
Objective: G.SRT.6

16.
Answer: B
Objective: G.SRT.6

17.
Answer: A
Objective: G.SRT.6

18.
Answer: D
Objective: G.SRT.6

19.
Answer: B
Objective: G.SRT.6

20.
Answer: B
Objective: G.SRT.6

21.
Answer: B
Objective: G.SRT.6

22.
Answer: B
Objective: G.SRT.6

23.
Answer: C
Objective: G.SRT.6

24.
Answer: C
Objective: G.SRT.6

25.
Answer: B
Objective: G.SRT.6

26.
Answer: C
Objective: G.SRT.6

27.
Answer: D
Objective: G.SRT.6

28.
Answer: B
Objective: G.SRT.6

29.
Answer: A
Objective: G.SRT.6

30.
Answer: B
Objective: G.SRT.6

31.
Answer: A
Objective: G.SRT.6

32.
Answer: D
Objective: G.SRT.7

33.
Answer: A
Objective: G.SRT.7

34.
Answer: C
Objective: G.SRT.7

35.
Answer: B
Objective: G.SRT.7

36.
Answer: D
Objective: G.SRT.7

37.
Answer: C
Objective: G.SRT.7

38.
Answer: B
Objective: G.SRT.8

39.
Answer: B
Objective: G.SRT.8

40.
Answer: A
Objective: G.SRT.8

41.
Answer: B
Objective: G.SRT.8

42.
Answer: C
Objective: G.SRT.8

43.
Answer: B
Objective: G.SRT.8

44.
Answer: B
Objective: G.SRT.8

45.
Answer: D
Objective: G.SRT.8

46.
Answer: B
Objective: G.SRT.8

47.
Answer: C
Objective: G.SRT.8

48.
Answer: A
Objective: G.SRT.8

49.
Answer: A
Objective: G.SRT.8

50.
Answer: D
Objective: G.SRT.8

51.
Answer: C
Objective: G.SRT.8

52.
Answer: A
Objective: G.SRT.8

53.
Answer: A
Objective: G.SRT.8

54.
Answer: C
Objective: G.SRT.8

55.
Answer: B
Objective: G.SRT.8

56.
Answer: B
Objective: G.SRT.8

57.
Answer: B
Objective: G.SRT.8

58.
Answer: D
Objective: G.SRT.8

59.
Answer: B
Objective: G.SRT.8

60.
Answer: B
Objective: G.SRT.8