شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية

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تجميعة أسئلة وفق الهيكل الوزاري الجديد ريفيل

التواصل الاجتماعي بحسب الصف الحادي عشر العام

روابط مواد الصف الحادي عشر العام على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف الحادي عشر العام والمادة رياضيات في الفصل الثالث

1	حل تجميعة أسئلة وفق الهيكل الوزاري بريدج
2	أسئلة نموذج تدريبي
3	حل تجميعة أسئلة وفق الهيكل الوزاري الجديد
4	حل تجميعة أسئلة وفق الهيكل الوزاري ريفيل
5	تجميعة أسئلة وفق الهيكل الوزاري الجديد ريفيل

هيكل امتحانات نهاية الفصل 3 EoT3 Exam Coverage Grade 11 General – Math

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أرجو التأكد من أرقام الصفحات ومطابقتها مع الأسئلة

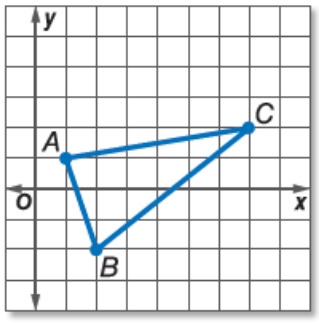
Reference(s) in the Student Book (Arabic Version)
المرجع في كتاب الطالب (النسخة العربية)

أرجو مشاركتها مع قروبات الطلبة و فالكم التفوق و النجاح

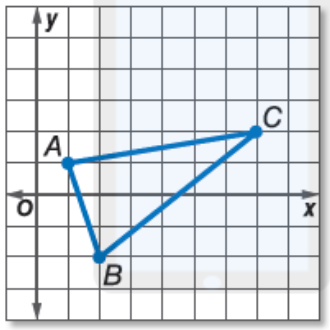
21	Draw reflections in the coordinate plane	Exercises (5-9)	P535

Example 3 Graph $\triangle ABC$ and its image in the given line.

5. $y = -2$



6. $x = 3$



Examples 4–5 Graph each figure and its image under the given reflection.

7. $\triangle XYZ$ with vertices $X(0, 4)$, $Y(-3, 4)$, and $Z(-4, -1)$ in the y-axis

8. $\square QRST$ with vertices $Q(-1, 4)$, $R(4, 4)$, $S(3, 1)$, and $T(-2, 1)$ in the x-axis

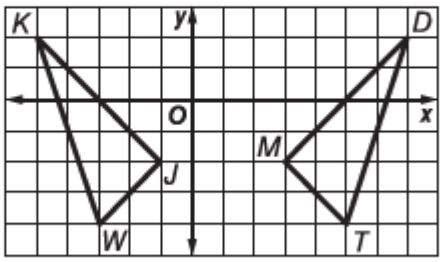
9. quadrilateral $JKLM$ with vertices $J(-3, 1)$, $K(-1, 3)$, $L(1, 3)$, and $M(-3, -1)$ in the line $y = x$

1	Draw reflections in the coordinate plane	Exercises (28-31)	P538

28. Which of the following is the reflection of the point $E(-7, 1)$ in the x-axis?

29. The coordinates of the vertices of ΔABC are $A(-3, 1)$, $B(1, 5)$, and $C(7, 0)$. Which are the coordinates of the image, $\Delta A'B'C'$, under the reflection of the triangle in the line $y = x$.

30. In which line is ΔMDT the reflection of ΔJKW?



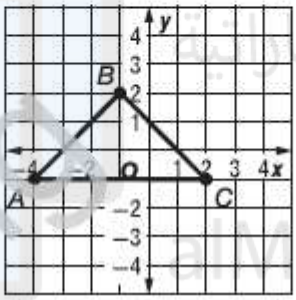
31. Which is the reflection of $P(-3, 10)$ in the line $y = x$?

2	Draw translations in the coordinate plane.	Exercises (28-34)	P545

28. $\triangle ABC$ is to be translated to $\triangle A'B'C'$ by the following motion rule.

$$(x, y) \longrightarrow (x - 2, y + 3)$$

What will be the coordinates of point B'?



29. The vertices of quadrilateral $ABCD$ are $A(-2, 1)$, $B(-2, 5)$, $C(3, 5)$, and $D(3, 1)$. If $ABCD$ is translated 6 units down and 5 units to the right to create $D'E'F'G'$, what are the coordinates of the vertices of $D'E'F'G'$?

30. Which are the coordinates of the image, P', of the point $P(4, 1)$ under $T_{-3, -3}$?

31. Under which translation will $B(-2, 5)$ be the translation of $A(-7, 8)$?

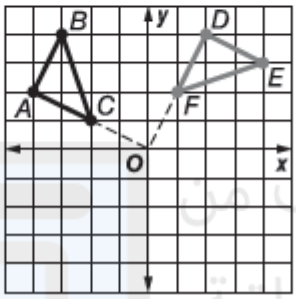
32. The coordinates of the vertices of ΔRST are $R(3, 1)$, $S(5, 4)$, and $T(7, 11)$. What are the coordinates of the vertices of the image, $\Delta R'S'T'$, under $T_{-6, 1}$?

33. Which are the coordinates of the image, H', of the point $H(-8, 3)$ under $T_{8,7}$?

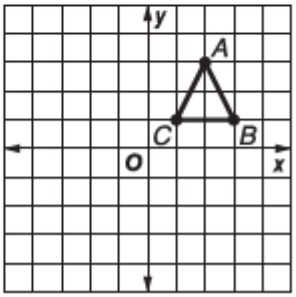
34. Which transformation would produce the image $P'(-4, 2)$ from the point $P(2, -1)$?

3	Draw rotations in the coordinate plane.	Exercises (6-7)	P551

6. $\triangle DEF$ is a rotation of $\triangle ABC$ in the plane.
Which statement verifies that the angle of rotation is 90°?



7. If triangle ABC is rotated 90° clockwise about the origin to make triangle $A'B'C'$, what are the coordinates of the vertex A'?



11	Draw rotations in the coordinate plane.	Exercises (14-19)	P553

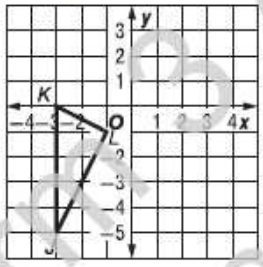
14. If triangle JKL is rotated 180 degrees about the origin, what are the coordinates of J'?

A (5, 3)

B (3, 0)

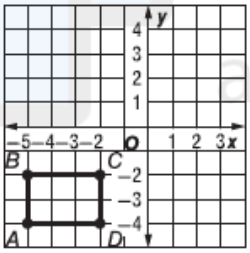
C (3, 5)

D (3, –5)



15. Triangle JKL has vertices at $J(0, 1)$, $K(2, 3)$, and $L(4, 0)$. If the triangle is rotated 180° about the origin, what will be the coordinates of K'?

16. What are the coordinates of C' if rectangle $ABCD$ is rotated 90° clockwise about the origin?



17. Which is the image of $P(0, 7)$ under a 90°-counterclockwise rotation?

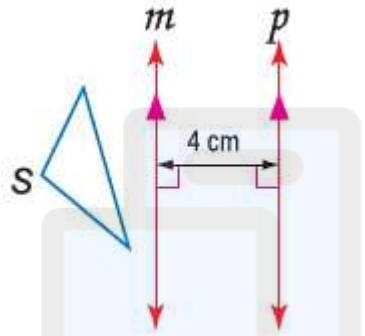
18. Which is the image of $Q(-3, 0)$ under a 90°-clockwise rotation?

19. Point $R(4, -2)$ is rotated about the origin 90°-counterclockwise. In which quadrant will the image of that point lie?

12	Draw glide reflections and other compositions of isometries in the coordinate plane.	Exercises (4-6)	P563

Example 3 **Copy and reflect figure S in line m and then line p. Then describe a single transformation that maps S onto S''.**

4.



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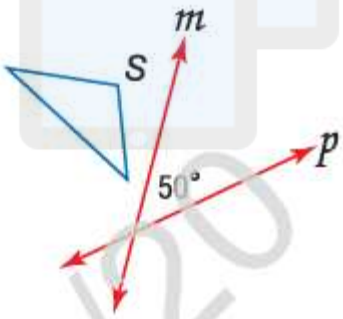


Example 4

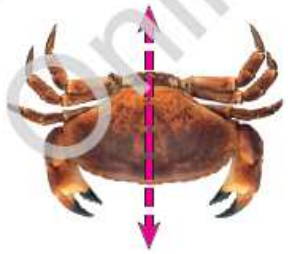
6. TILE PATTERNS Ismail is creating a pattern for the top of a table with tiles in the shape of isosceles triangles. Describe the transformation combination that was used to create the pattern.

13	Identify line and rotational symmetries in two-dimensional figures.	Example1	P571

Real-World Example 1 Identify Line Symmetry

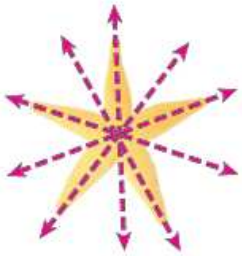
BEACHES State whether the object appears to have line symmetry. Write *yes* or *no*. If so, copy the figure, draw all lines of symmetry, and state their number.

a.



Yes; the crab has one line of symmetry.

b.



Yes; the starfish has five lines of symmetry.

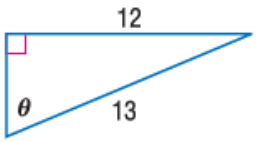
c.

No; there is no line in which the oyster shell can be reflected so that it maps onto itself.

4	Use trigonometric ratios to find side lengths and angle measures of right triangles.	Exercises (13-16)	P607

Example 1 Find the values of the six trigonometric functions for angle θ.

13.



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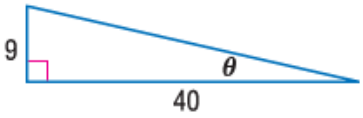

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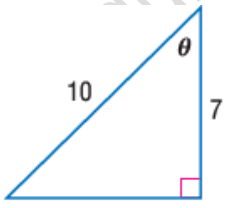
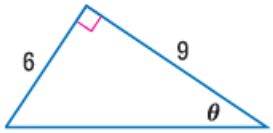


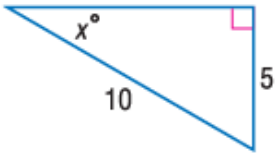
16.



5	Use trigonometric ratios to find side lengths and angle measures of right triangles.	Exercises (29-34)	P609

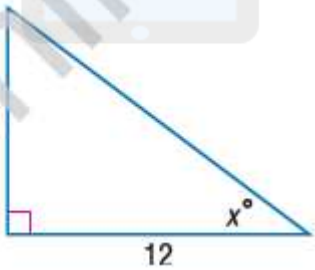
Example 5 **Find the value of x. Round to the nearest tenth.**

29.



30.

31.



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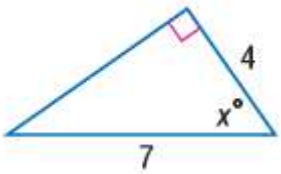

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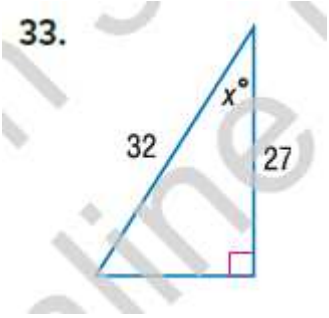

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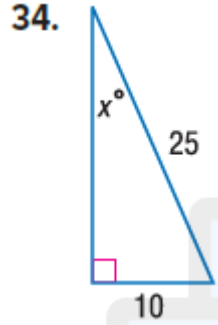


15	Convert between degree measures and radian measures.	Exercises (19-24)	P615

Example 3 **Find an angle with a positive measure and an angle with a negative measure that are coterminal with each angle.**

19. $50°$ **20.** $95°$ **21.** $205°$

22. $350°$ **23.** $-80°$ **24.** $-195°$

6	Convert between degree measures and radian measures.	Exercises (25-30)	P615

Example 4 Rewrite each degree measure in radians and each radian measure in degrees.

25. $330°$

26. $\frac{5\pi}{6}$

27. $-\frac{\pi}{3}$

28. $-50°$

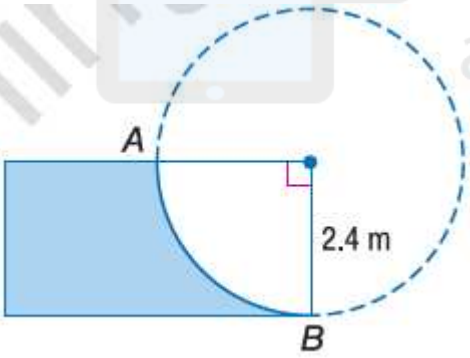
29. $190°$

30. $-\frac{7\pi}{3}$

14	Convert between degree measures and radian measures.	Exercises (31-36)	P615

Example 5

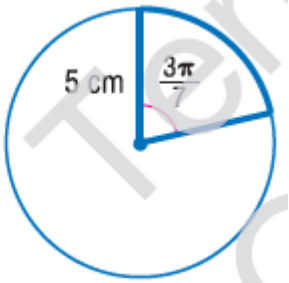
31. SKATEBOARDING The skateboard ramp at the right is called a *quarter pipe*. The curved surface is determined by the radius of a circle. Find the length of the curved part of the ramp.



32. RIVERBOATS The paddlewheel of a riverboat has a diameter of 7.2 m. Find the arc length of the circle made when the paddlewheel rotates 300°.

Find the length of each arc. Round to the nearest tenth.

33.



34.

35. **CLOCKS** How long does it take for the minute hand on a clock to pass through 2.5π radians?

36. **PERSEVERANCE** Refer to the beginning of the lesson. A shadow moves around a sundial 15° every hour.

a. After how many hours is the angle of rotation of the shadow $\frac{8\pi}{5}$ radians?

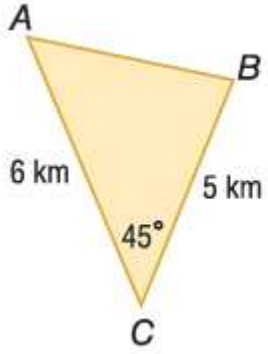
b. What is the angle of rotation in radians after 5 hours?

c. A sundial has a radius of 20 cm. What is the arc formed by a shadow after 14 hours? Round to the nearest tenth.

16	Find the area of a triangle using two sides and an included angle.	Exercises (13-20)	P631

Example 1 **Find the area of $\triangle ABC$ to the nearest tenth.**

13.



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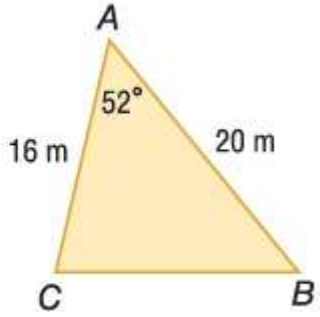

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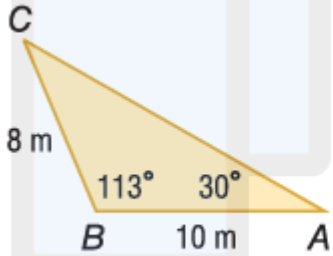

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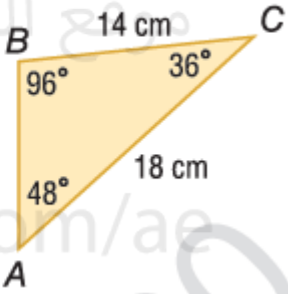


17. $C = 25°$, $a = 4$ m, $b = 7$ m

18. $A = 138°$, $b = 10$ cm, $c = 20$ cm

19. $B = 92°$, $a = 14.5$ m, $c = 9$ m

20. $C = 116°$, $a = 2.7$ cm, $b = 4.6$ cm

7	Find values of trigonometric ratios by using reference angles.	Exercises (53-58)	P633

Find the exact value of each trigonometric function. (Lesson 11-3)

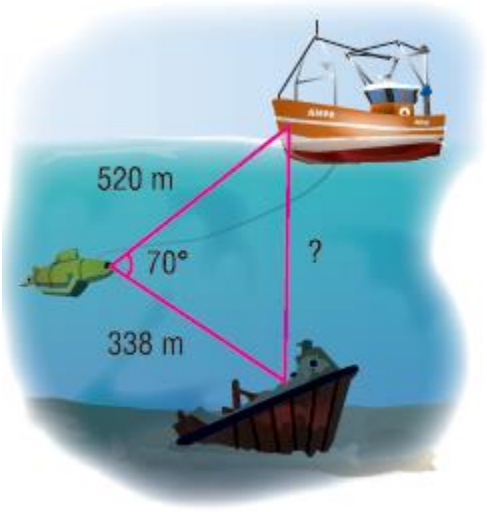
53. $\sin 210^\circ$ **54.** $\cos \frac{3}{4}\pi$ **55.** $\cot 60^\circ$

Find an angle with a positive measure and an angle with a negative measure that are coterminal with each angle. (Lesson 11-2)

56. 125° **57.** -32° **58.** $\frac{2}{3}\pi$

22	Use the Law of Cosines to solve triangles.	Exercises (23-28)	P638 &P639

23 **EXPLORATION** Find the distance between the ship and the shipwreck shown in the diagram. Round to the nearest tenth.



24. GEOMETRY A parallelogram has side lengths 8 cm and 12 cm. One angle between them measures 42°. To the nearest tenth, what is the length of the shorter diagonal?

25. RACING A triangular cross-country course has side lengths 1.8 km, 2 km, and 1.2 km. What are the angles formed between each pair of sides?

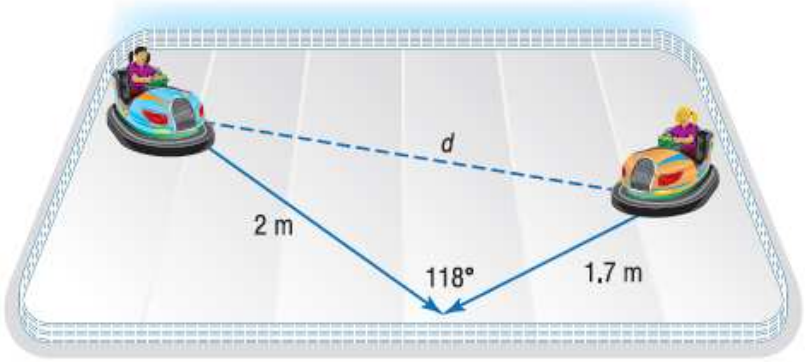
26. MODELING A triangular plot of farm land measures 0.9 by 0.5 by 1.25 km.

a. If the plot of land is fenced on the border, what will be the angles at which the fences of the three sides meet? Round to the nearest degree.

b. What is the area of the plot of land?

27. LAND Some land is in the shape of a triangle. The distances between each vertex of the triangle are 140 m, 210 m and 300 m, respectively. Use the Law of Cosines to find the area of the land to the nearest square meter.

28. RIDES Two bumper cars at an amusement park ride collide as shown below.



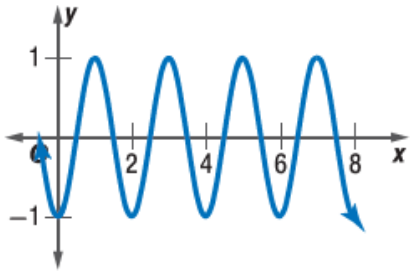
a. How far apart d were the two cars before they collided?

b. Before the collision, a third car was 3 m from car 1 and 4 m from car 2. Describe the angles formed by cars 1, 2, and 3 before the collision.

8	Use the properties of periodic functions to evaluate trigonometric functions.	Exercises (3-4) & (13-18)	P645 &P646

Example 2 Determine the period of each function.

3.



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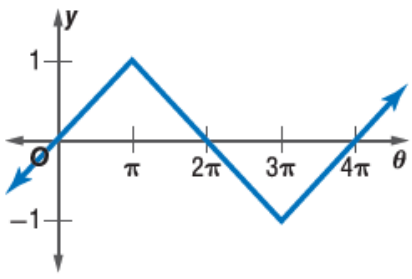
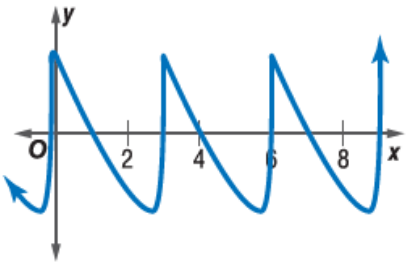


Example 2 Determine the period of each function.

13.



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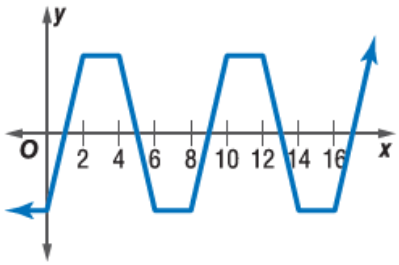
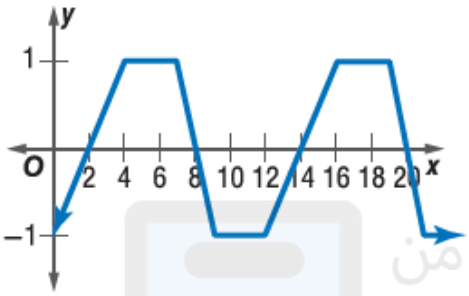


15.



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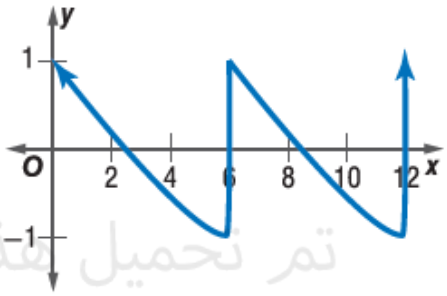
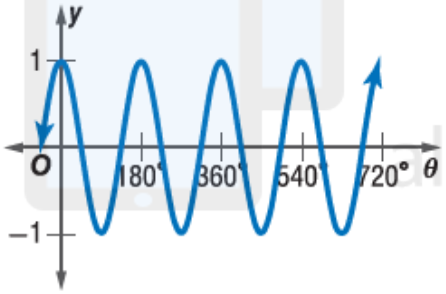
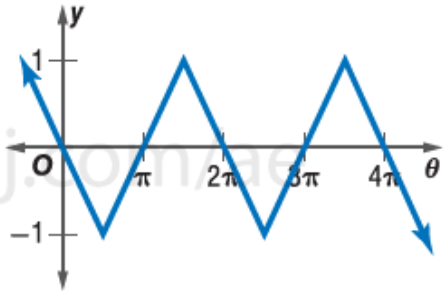


Determine the period of each function.

17.



18.



17	Find values of inverse trigonometric functions.	Exercises (18-23)	P668

Example 2 Find each value. Round to the nearest hundredth if necessary.

18. $\tan\left(\text{Cos}^{-1}\,1\right)$

19. $\tan\left[\text{Arcsin}\left(-\frac{1}{2}\right)\right]$

20. $\cos\left(\text{Tan}^{-1}\,\frac{3}{5}\right)$

21. $\sin\left(\text{Arctan}\,\sqrt{3}\right)$

22. $\cos\left(\text{Sin}^{-1}\,\frac{4}{9}\right)$

23. $\sin\left[\text{Cos}^{-1}\left(-\frac{\sqrt{2}}{2}\right)\right]$

18	Solve trigonometric identities.	Exercises (24-29)	P668

Example 3 **Solve each equation. Round to the nearest tenth if necessary.**

24. $\text{Tan}\ \theta = 3.8$

25. $\text{Sin}\ \theta = 0.9$

26. $\text{Sin}\ \theta = -2.5$

27. $\text{Cos}\ \theta = -0.25$

28. $\text{Cos}\ \theta = 0.56$

29. $\text{Tan}\ \theta = -0.2$

19	Use trigonometric identities to find trigonometric values.	Exercises (9-16)	P688

Example 1 **Find the exact value of each expression if $0° < \theta < 90°$.**

9. If $\cos\theta = \frac{3}{5}$, find $\csc\theta$.

10. If $\sin\theta = \frac{1}{2}$, find $\tan\theta$.

11. If $\sin\theta = \frac{3}{5}$, find $\cos\theta$.

12. If $\tan\theta = 2$, find $\sec\theta$.

Find the exact value of each expression if $180° < \theta < 270°$.

13. If $\cos\theta = -\frac{3}{5}$, find $\csc\theta$.

14. If $\sec\theta = -3$, find $\tan\theta$.

15 If $\cot\theta = \frac{1}{4}$, find $\csc\theta$.

16. If $\sin\theta = -\frac{1}{2}$, find $\cos\theta$.

Find the exact value of each expression if $270° < \theta < 360°$.

17. If $\cos\theta = \frac{5}{13}$, find $\sin\theta$.

18. If $\tan\theta = -1$, find $\sec\theta$.

19. If $\sec\theta = \frac{5}{3}$, find $\cos\theta$.

9	Use trigonometric identities to simplify expressions.	Exercises (21-26)	P688

Example 2 **Simplify each expression.**

21. $\sec\theta\tan^2\theta + \sec\theta$

22. $\cos\left(\frac{\pi}{2} - \theta\right)\cot\theta$

23. $\cot\theta\sec\theta$

24. $\sin\theta\,(1 + \cot^2\theta)$

25. $\sin\left(\frac{\pi}{2}-\theta\right)\sec\theta$

26. $\frac{\cos(-\theta)}{\sin(-\theta)}$

23	Verify trigonometric identities by transforming one side of an equation into the form of the other side.	Exercises (19-24)	P695

Example 3 **Verify that each equation is an identity.**

19. $\sec\theta-\tan\theta=\frac{1-\sin\theta}{\cos\theta}$

20. $\frac{1+\tan\theta}{\sin\theta+\cos\theta}=\sec\theta$

21. $\sec\theta\csc\theta=\tan\theta+\cot\theta$

22. $\sin\theta + \cos\theta = \dfrac{2\sin^2\theta - 1}{\sin\theta - \cos\theta}$

23. $(\sin\theta + \cos\theta)^2 = \dfrac{2 + \sec\theta\csc\theta}{\sec\theta\csc\theta}$

24. $\dfrac{\cos\theta}{1 - \sin\theta} = \dfrac{1 + \sin\theta}{\cos\theta}$

20	Find values of sine and cosine by using sum and difference identities.	Exercises (1-6)	P700

Example 1 **Find the exact value of each expression.**

1. $\cos 165^\circ$
2. $\cos 105^\circ$
3. $\cos 75^\circ$
4. $\sin(-30^\circ)$
5. $\sin 135^\circ$
6. $\sin(-210^\circ)$

10	Find values of sine and cosine by using sum and difference identities.	Exercises (12-17)	P701

Example 1 **Find the exact value of each expression.**

12. $\sin 165^\circ$

13. $\cos 135^\circ$

14. $\cos \frac{7\pi}{12}$

15. $\sin \frac{\pi}{12}$

16. $\tan 195^\circ$

17. $\cos\left(-\frac{\pi}{12}\right)$