# Assessment

**Mathematics**: Lesson31

What type of angle measures less than 90 degrees?

A.  Right

B.  Acute

C.  Straight

D.  Obtuse

What type of angle measures more than 90 degrees and less than 180 degrees?

A. Acute

B. Obtuse

C. Straight

D. Right

Supplementary angles must share a common side.

A. True

B. False

Which two angles are complementary?

A. 30° and 130°

B. 20° and 160°

C. 45° and 145°

D. 1° and 89°

Two angles are complementary. One angle measures $(4x - 10)$ degrees. The other angle measures $(3x - 15)$ degrees. Which equation should you use to solve for the measures of the angles?

A. $(4x - 10) + (3x - 15) = 180$

B. $180 - (4x - 10) - (3x - 15)$

C. $90 + (4x - 10) + (3x - 15)$

D. $(4x - 10) + (3x - 15) = 90$

The difference between the measure of 2 supplementary angles is 50°.  Find the measure of the larger angle.

A.  70°

B.  100°

C.  115°

D.  50°

Express the angle in degrees to the nearest hundredth 64°6′46″

A.  64.17°

B.  64.11°

C.  64.12°

D.  64.07°

Express the angle in degrees to the nearest hundredth 44°52′54"

A.  44.89°

B.  44.88°

C.  44.94°

D.  44.84°

Express the angle to degrees, minutes and seconds. Round seconds to whole units.
— 332.66°

A. −332°22′66″

B. −332°39′23″

C. −332°39′36″

D. −332°40′22″

Express this decimal degree to degrees, minutes and seconds form 75.25°

A. 75°15′0"

B. 75°15′56"

C. 75°15′60"

D. 75°25′0"

# Assessment
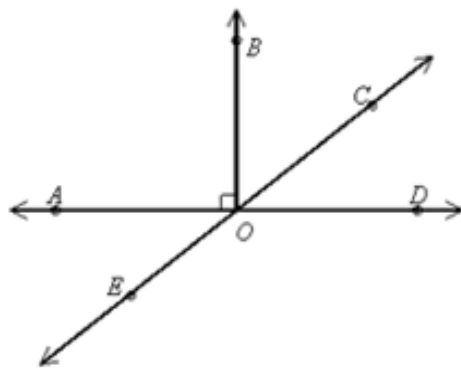
**Mathematics**: Lesson32

Name an angle supplementary to $\angle BOC$

A. $\angle BOC$

B. $\angle BOE$

C. $\angle DOC$

D. $\angle BOA$

The complement of an angle is 25°.  What is the measure of the angle?

A.  75°

B.  65°

C.  155°

D.  165°

Name an acute angle in the given diagram.

A. ∠TRW

B. ∠QRV

C. ∠SRT

D. ∠WRV
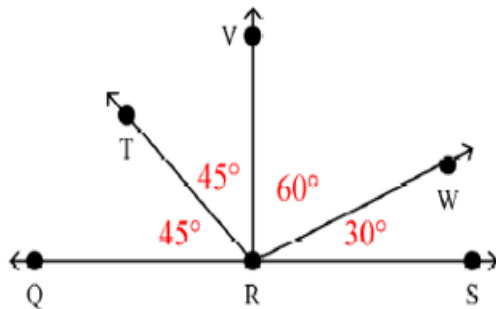
Two complementary angles measure $x$ and 65°.  How many degrees are there in $x$?

A.  295°

B.  25°

C.  15°

D.  115°

Convert 87°26′3" to a decimal degree and round to the nearest thousandth

A. 87.437°

B. 87.444°

C. 87.434°

D. 87.484°

Convert the angle to decimal degrees. Round the answer to two decimal places 291°26′12".

A. 291.45°

B. 291.50°

C. 291.40°

D. 291.44°

Convert the angle to a decimal in degrees.  Round the answer to two decimal places
21°17′34″

A.  21.34°

B.  21.29°

C.  21.22°

D.  21.37°

Convert the angle to degree, minutes and seconds form.  Round the answer to the nearest second 183.82°

A.  183°49′12″

B.  183°49′82″

C.  183°50′12″

D.  183°47′82″

Convert the angle to degrees, minutes and seconds 40.78°

A. 40°46′54″

B. 40°46′78″

C. 40°46′36″

D. 40°46′48″

Convert the angle to degree, minutes and seconds 217.03°

A. 217°1′48″

B. 217°1′3″

C. 217°47′3″

D. 217°2′47″

# Assessment

**Mathematics**: Lesson 33

In which quadrant does a $-285°$ angle lie?

A.  Q I

B.  Q II

C.  Q III

D.  Q IV

Which angle is not coterminal with an angle that measures 300°?

A.  −420°

B.  −300°

C.  −60°

D.  660°

Find the smallest positive coterminal angle with 975°

A.  135°

B.  165°

C.  195°

D.   255°

Find the angle of smallest possible positive measure coterminal with the angle $-295°$

A.  $-115°$

B.  $295°$

C.  $245°$

D.  $65°$

Find the supplement of an angle whose measure is 114°

A. 204°

B. 294°

C. 66°

D. −24°

Find the measure of two other angles, one positive and one negative, coterminal to the given angle 54°.

A. 234° and − 336°

B. 594° and − 696°

C. 504° and − 396°

D. 414° and − 306°

Which of the following angles is coterminal with  195°

A.  75°

B.  105°

C.  15°

D.  195°

State if the giving angles are coterminal $355°, -365°$

A. Yes

B. No

Which of the following angles is coterminal with $-557°$

A. 17°

B. 73°

C. 163°

D. 197°

An angle in standard position whose measure is—1550° has its terminal side in

A.  Quadrant I

B.  Quadrant II

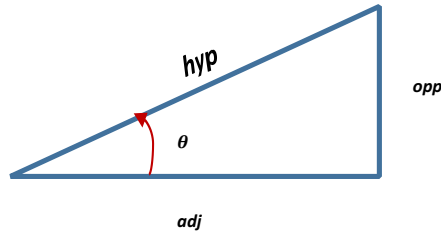C.  Quadrant III

D.  Quadrant IV

# Assessment

Physics: Lesson34

Answer the following trigonometric function sin $\theta$ =

A. $\dfrac{opp}{hyp}$

B. $\dfrac{hyp}{opp}$

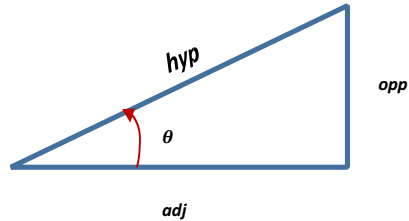C. $\dfrac{adj}{hyp}$

Answer the following trigonometric function sec $\theta$ =

A. $\dfrac{hyp}{opp}$

B. $\dfrac{hyp}{adj}$
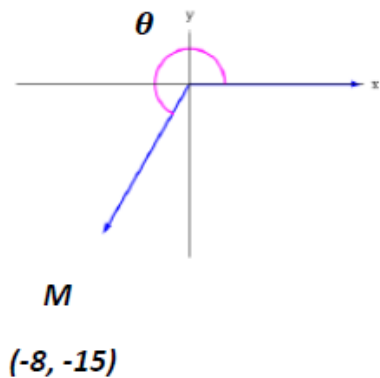
C. $\dfrac{opp}{adj}$

D. $\dfrac{adj}{hyp}$

If point M is located at (-8, -15). Find tan $\theta$.

A. $\dfrac{17}{-8}$

B. $\dfrac{17}{-15}$

C. $\dfrac{-8}{-15}$

**D.** $\dfrac{-15}{-8}$



M

(-8, -15)

If sin $\theta = \dfrac{1}{9}$ , $find$ csc $\theta$

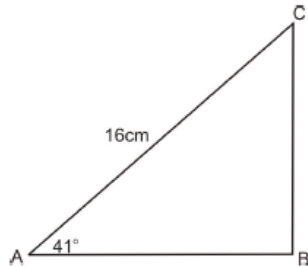A.  $\dfrac{8}{9}$

B.  $-\dfrac{1}{9}$

C.  9

D.  $Undefined$

Which of the following would be used to calculate $\overline{BC}$ ?

A. $sin \angle A = \dfrac{opp}{hyp}$

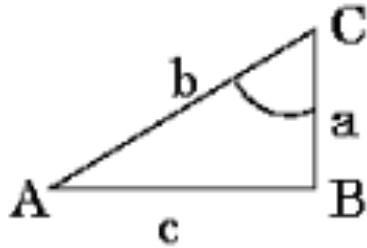B. $(h)^2=(s_1)^2+(s_2)^2$

C. $cos\angle A=\dfrac{adj}{hyp}$

D. $tan\angle A=\dfrac{opp}{adj}$



16cm

41°

A    B    C

From the figure given find the value of $\sin C$
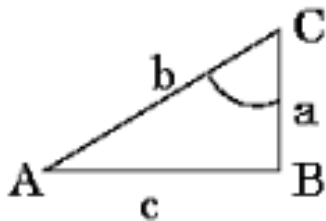
A. $a/b$

B. $b/a$

C. $a/c$

D. c/b

From the figure given, find the value of $\cos C + \sin A$

A. $\dfrac{b}{a} + \dfrac{a}{b}$

B. $\dfrac{2a}{b}$
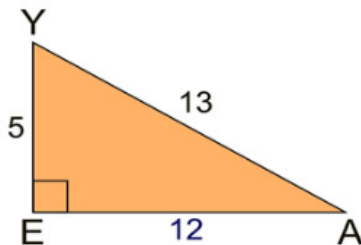
C. $\dfrac{2b}{a}$

D. $\dfrac{b}{c} + \dfrac{c}{a}$

Which ratio represents csc$A$ in the right triangle shown below?

A. $\dfrac{13}{5}$

B. $\dfrac{13}{12}$

C. $\dfrac{12}{5}$

D. $\dfrac{5}{12}$
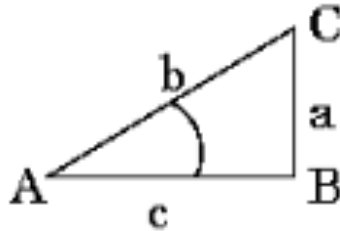
From the figure given, find the value of cot$A$

A. cos$C$/sin$C$

B. $\dfrac{a}{c}$

C. $\dfrac{c}{b}$

D. tan C

Given $\sin\theta = \frac{1}{\sqrt{2}}$, $find$ $\frac{\cot\theta}{\csc\theta}$

A. $\frac{1}{\sqrt{3}}$

B. $1$

C. $\frac{1}{\sqrt{2}}$

D. $\sqrt{2}$

# Assessment

**Mathematics**: Lesson 35

tan $\theta$ $and$ cot $\theta$ are negative in the _____ and _____ quadrants.

A.  2nd and 4th

B.  2nd and 3rd

C.  1st and 3rd

D.  1st and 2nd

Identify the quadrant of $angle\ \theta$ that satisfies the given condition $\sin \theta > 0, \ \tan \theta > 0$

A.  Q II

B.  Q I

C.  Q III

D.  Q IV

Find $\sin \theta$, given that $\cos \theta = \dfrac{4}{5}$ $and$ $\theta$ is in quadrant IV.

A. $\sin \theta = \dfrac{-3}{5}$

B. $\sin \theta = \dfrac{5}{4}$

C. $\sin \theta = \dfrac{3}{5}$

D. $\sin \theta = \dfrac{3}{4}$

If $\theta$ is a positive, acute angle and $\sin 2\theta = \frac{\sqrt{3}}{2}$, then $(\cos\theta + \sin\theta)^2 = ?$
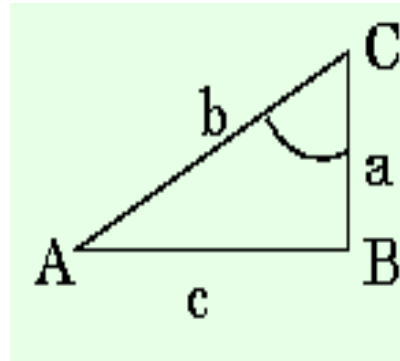
A. 1

B. 30°

C. $1 + \frac{\sqrt{3}}{2}$

D. 60°

From the figure, the value of $\cot C + cosec\ C$ is

A. $\dfrac{(a+b)}{c}$

B. $\dfrac{a}{c} + \dfrac{c}{b}$

C. $\dfrac{c}{a} + \dfrac{b}{c}$

D. $\dfrac{(c+b)}{a}$

Is the following equation correct? $2\sin(x)^2 + 2\cos(x)^2 = 2$

A. Yes

B. No

$1 - (sin^2\theta + cos^2\theta) = ?$

A.  0

B.  1

C.  $sin^2\theta$

D.  $cos^2\theta$

$$\frac{\sin \theta}{\sin^2 \theta + \cos^2 \theta} = ?$$

A.  $\sin \theta$

B.  $\sec \theta$

C.  $\tan \theta$

D.  $\csc \theta$

$$\frac{\sec \theta}{\sin^2\theta + \cos^2\theta} = ?$$

A.  cos θ

B.  sin θ

C.  sec θ

D.  tan θ

cot A  tan A  =

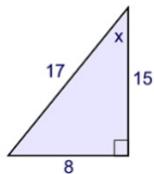A. $\dfrac{1}{(\sin A \cos A)}$

B.  sin A  cos A

C.  sin A

D.  1

# Assessment

**Mathematics**: Lesson 36

Which of the equations can be used to find the value of $x$ in the diagram given?
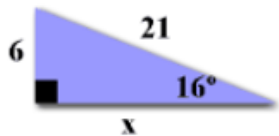


A. $\sin x = \dfrac{8}{17}$

B. $\cos x = \dfrac{15}{17}$

C. $\tan x = \dfrac{8}{15}$

D. All choices can be used

Which statement can NOT be used to find the length of $x$?



A.  $\tan 16 = \dfrac{6}{x}$

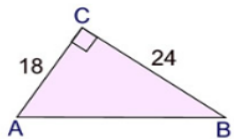B.  $\tan 16 = \dfrac{x}{6}$

C.  $\cos 16 = \dfrac{x}{21}$

D.  $\tan 74 = \dfrac{x}{6}$

Find the value of $\cos(B)$ to the nearest tenth.



   *A.* 0.6

   *B.* 1.3

   *C.* 1.7

   *D.* 0.8

Without using a calculator, give the exact trigonometric function value with rational denominator. $\cos 60°$

A. $\sqrt{3}$

B. $\dfrac{\sqrt{2}}{2}$

C. $\dfrac{1}{2}$

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

Find the exact value of $\cos 60° + \sin 30° - \tan 45°$.

   *A.* 0

   *B.* 2

   *C.* 1

   *D.* −1

Find $\sin \theta$ if $\cos \theta = \dfrac{2}{3}$ and $\theta$ is in quadrant IV.

A. $-\dfrac{\sqrt{5}}{3}$

B. $\dfrac{3\sqrt{7}}{7}$

C. $-\dfrac{3}{2}$

D. $\dfrac{5}{4}$

Write in terms of the cofunction of a complementary angle, $\tan 57°$.

*A.* $\cot 33°$

*B.* $\cot 123°$

*C.* $\cot 147°$

*D.* $\tan 33°$

Use the cofunction identities to find an angle $\theta$ that makes the statement true. $\sin(3\theta - 17°) = \cos(\theta + 43°)$.

*A.* $\theta = 6°$

*B.* $\theta = 90°$

*C.* $\theta = 10°$

*D.* $\theta = 16°$

Use the cofunction identities to find an angle $\theta$ that makes the statement true.

$\tan \theta = \cot(30° + 5\theta)$

    *A.*  $\theta = 6°$

    *B.*  $\theta = 75°$

    *C.*  $\theta = 10°$

    *D.*  $\theta = 16°$

Use the cofunction identities to find an angle $\theta$ that makes the statement true. $\sec(6\theta + 17°) = \csc(2\theta - 7°)$.

A. $\theta = 40°$

B. $\theta = \dfrac{83°}{7}$

C. $\theta = \dfrac{17°}{7}$

D. $\theta = 10°$