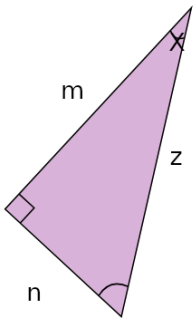
Name

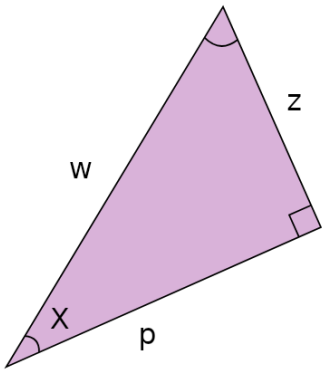
Trigonometry Fundamentals - Practice

1 What would the ratio of opposite over hypotenuse be with respect to angle 'X'



A	$\frac{z}{m}$	B	$\frac{n}{z}$
C	$\frac{z}{n}$	D	$\frac{m}{n}$
E	$\frac{m}{z}$	F	$\frac{n}{m}$

2 What would side z over p be called with respect to angle 'X'



A	$\frac{opposite}{adjacent}$	B	$\frac{opposite}{hypotenuse}$
C	$\frac{hypotenuse}{opposite}$	D	$\frac{adjacent}{opposite}$
E	$\frac{hypotenuse}{adjacent}$	F	$\frac{adjacent}{hypotenuse}$

3 Select the definition of this trigonometry ratio

Tangent

A	$hyp \times adj$
B	$\frac{opp}{adj}$

4 Select the trigonometry ratio that this is the definition of

$$\frac{opp}{hyp}$$

A	$Sine$
B	$Cosine$
C	$Tangent$

5 Select the reciprocal of this trigonometry ratio

$$\sec$$

A	$\frac{1}{\cos}$	B	$\frac{1}{\csc}$

Name

Trigonometry Fundamentals - Practice

6 Select the definition of this side in terms of Cosine

$What\ is\ hyp?$

$$cos = \frac{adj}{hyp}$$

A $\frac{adj}{cos}$	B $\frac{cos}{opp}$
C $cos \times hyp$	D $cos \times adj$
E $cos \times opp$	F $\frac{opp}{cos}$

7 Select the trigonometry ratio for this reciprocal

$$\frac{1}{\cot}$$

A $\tan$	B $\csc$

8 Select the definition of this side in terms of Sine

Opposite

A $sin \times adj$	B $\frac{sin}{opp}$
C $\frac{adj}{sin}$	D $\frac{hyp}{sin}$
E $sin \times hyp$	F $sin \times opp$

9 How would you calculate the angle using arc notation?

α has a sin of 0.707

A $\alpha = \frac{1}{\sin^{-1}(0.707)}$
B $\alpha = \frac{1}{\text{asin}(0.707)}$
C $\alpha = \text{asin}(0.707)$
D $\alpha = \sin(0.707) - 1$

10 Calculate the value of this trig ratio

$\text{The tan of } 60°$

A 2.424	B 1.386	C 1.905
D 1.213	E 1.732	F 1.559

Name

Trigonometry Fundamentals - Practice

11 Solve for the ratio of lengths of line p over line n

p=9

n=36

$$\frac{p}{n} = ?$$

A $\frac{p}{n} = 0.25$	B $\frac{p}{n} = 20.00$
C $\frac{p}{n} = 1.33$	D $\frac{p}{n} = 0.55$
E $\frac{p}{n} = 0.05$	F $\frac{p}{n} = 1.05$

12 How would you calculate the angle using -1 notation?

α has a sin of 0.777

A $\alpha = \sin^{-1}(0.777)$

B $\alpha = \frac{1}{\text{asin}(0.777)}$

C $\alpha = \frac{1}{\sin^{-1}(0.777)}$

D $\alpha = \sin(0.777) - 1$

13 How would you calculate the angle, using arc notation?

$\sin(\alpha) = 0.988$

A $\alpha = \text{asin}(0.988)$

B $\alpha = \frac{1}{\text{asin}(0.988)}$

C $\alpha = \frac{1}{\sin^{-1}(0.988)}$

D $\alpha = \sin(0.988) - 1$

Name



Trigonometry Fundamentals - Practice

14 How would you calculate the angle, using -1 notation?

$$\sin(\alpha) = 0.695$$

A $$\alpha = \frac{1}{\text{asin}(0.695)}$$

B $$\alpha = \sin^{-1}(0.695)$$

C $$\alpha = \frac{1}{\sin^{-1}(0.695)}$$

D $$\alpha = \sin(0.695) - 1$$

15 Calculate the trigonometric ratio of the given angle (in degrees)

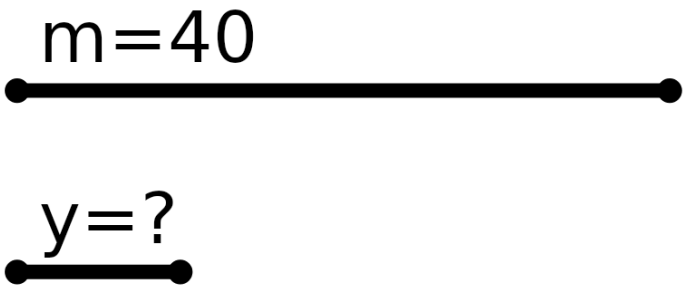
$$\sin(35°) = ?$$

A 0.574	B 1.266	C 0.747
D 1.093	E 0.055	F 0.401

16 Calculate the angle in degrees

α has a sin of 0.755

17 Solve for the length of line y



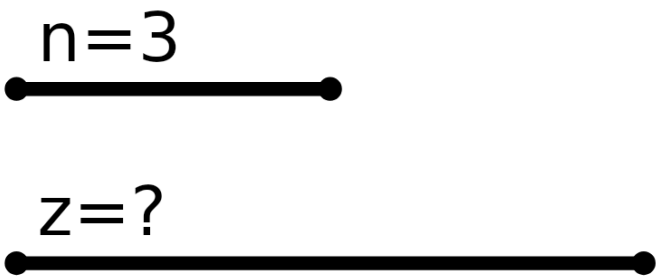
$$\frac{y}{m} = 0.25$$

A y = 8	B y = 43	C y = 37
D y = 10	E y = 40	F y = 7

Name

Trigonometry Fundamentals - Practice

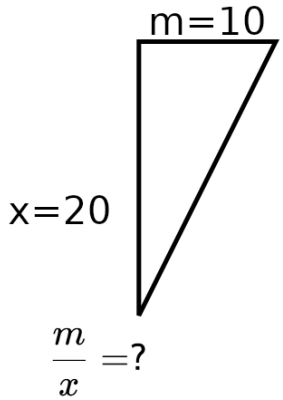
18 Solve for the length of line z



$$\frac{n}{z} = 0.5$$

A z = 5	B z = 6	C z = 10
D z = 7	E z = 2	F z = 8

19 Solve for the ratio of lengths of line m over line x

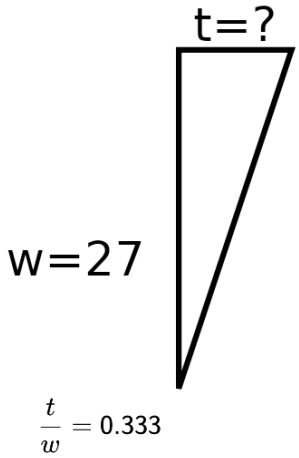


A $\frac{m}{x} = 1.3$	B $\frac{m}{x} = 10.0$
C $\frac{m}{x} = 0.3$	D $\frac{m}{x} = 0.5$
E $\frac{m}{x} = 1.1$	F $\frac{m}{x} = 0.7$

Name

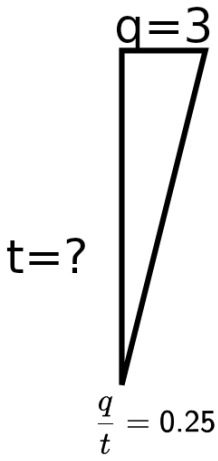
Trigonometry Fundamentals - Practice

20 Solve for the length of line t



A t = 10	B t = 7	C t = 29
D t = 8	E t = 30	F t = 9

21 Solve for the length of line t



A t = 3	B t = 9	C t = 10
D t = 12	E t = 6	F t = 4

Name

Trigonometry Fundamentals - Practice

22 Solve for the ratio of lengths of line z over line p



$$\frac{z}{p} = ?$$

A $\frac{z}{p} = 0.25$	B $\frac{z}{p} = 0.95$
C $\frac{z}{p} = 1.05$	D $\frac{z}{p} = 0.75$
E $\frac{z}{p} = 0.05$	F $\frac{z}{p} = 2.22$

23 Solve for the length of line q



$$\frac{p}{q} = 3$$

A q = 9	B q = 4	C q = 12
D q = 6	E q = 5	F q = 7

Name

Trigonometry Fundamentals - Practice

24 Solve for the length of line x



$$\frac{x}{n} = 4$$

A x = 41	B x = 48	C x = 44
D x = 43	E x = 6	F x = 7

25 Calculate the angle in degrees, given the trigonometric ratio

$$\cos(\alpha) = 0.799$$

26 Calculate the angle in degrees, given the trigonometric ratio

$$\sin^{-1}(0.988) = \alpha$$

27 Calculate the angle in degrees, given the trigonometric ratio

$$\text{acos}(0.616) = \alpha$$

28 What angle (in degrees) has this ratio of sides?

$$\frac{\text{opp}}{\text{adj}} = 2.747$$

A	70 deg	B	90 deg
C	75 deg	D	60 deg
E	80 deg	F	85 deg

Name

Trigonometry Fundamentals - Practice

29 What angle (in degrees) has this ratio of sides?

$$\frac{\text{opp}}{\text{hyp}} = \frac{1.39}{8}$$

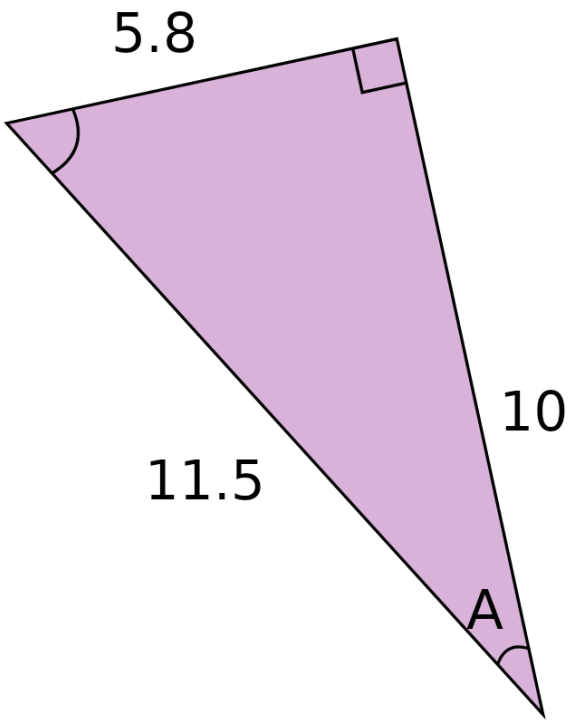
A	5 deg	B	10 deg
C	15 deg	D	30 deg
E	20 deg	F	0 deg

30 Solve for the side indicated

$\alpha = 50°$
$hyp = 6.2$
$opp = ?$

A	$opp = 4.7$	B	$opp = 5.7$
C	$opp = 6.6$	D	$opp = 6.2$
E	$opp = 4.3$	F	$opp = 3.8$

31 Solve for the trigonometric ratio in fraction form



A

$$\cos(A) = 11.5 \times 11.5$$

B

$$\cos(A) = \frac{10}{11.5}$$

C

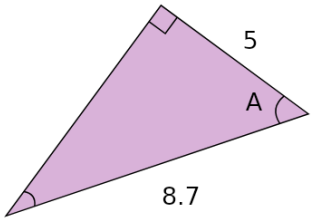
$$\cos(A) = \frac{5.8}{11.5}$$

32 Solve for the angle in degrees given the values

$opp = 3.5$
$adj = 5$
$\lambda = ?°$

A	$\lambda = 35°$	B	$\lambda = 20°$
C	$\lambda = 50°$	D	$\lambda = 40°$
E	$\lambda = 45°$		

33 Solve for the angle in degrees with trigonometry

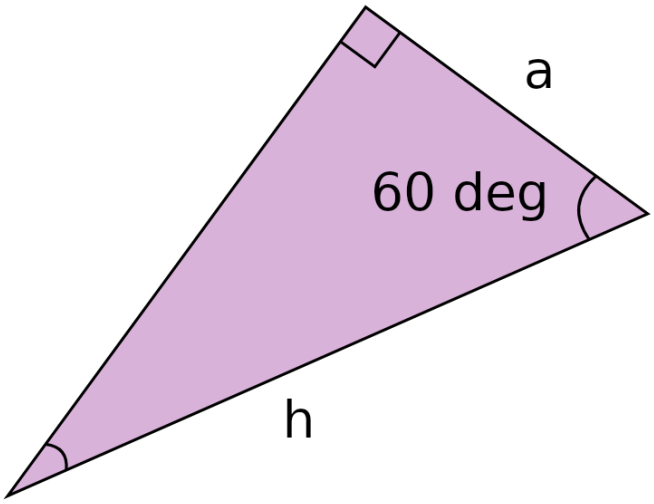


A	$A = 55°$		
B	$A = 40°$		
C	$A = 45°$		
D	$A = 75°$		

Name

Trigonometry Fundamentals - Practice

34 Visually approximate the ratio of side 'a' to side 'h'



A

$$\frac{a}{h} = 0.93$$

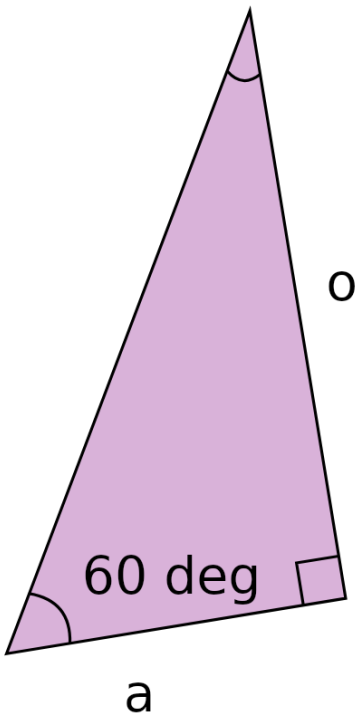
B

$$\frac{a}{h} = 0.50$$

C

$$\frac{a}{h} = -0.18$$

35 Visually approximate the Tangent of the given angle



A

$$\tan(60) = 210.10$$

B

$$\tan(60) = 2.81$$

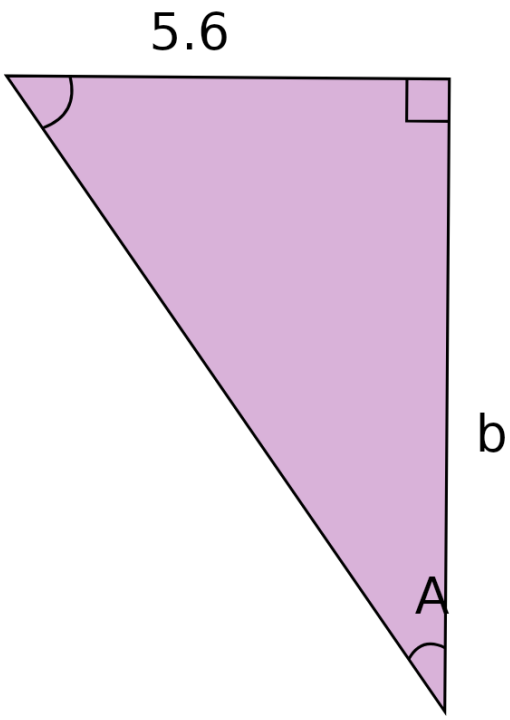
C

$$\tan(60) = 1.74$$

Name

Trigonometry Fundamentals - Practice

36 Solve for the side length in ratio form



A

$$b = tan(A) \times 5.6$$

B

$$b = \frac{5.6}{tan(A)}$$

C

$$b = \frac{tan(A)}{5.6}$$

37 Solve for the trigonometry ratio given the values

$$adj = 6$$
$$hyp = 9.3$$
$$opp = 7.2$$
$$sin(\alpha) =$$

A

$$sin(\alpha) = 1.04$$

B

$$sin(\alpha) = 0.77$$

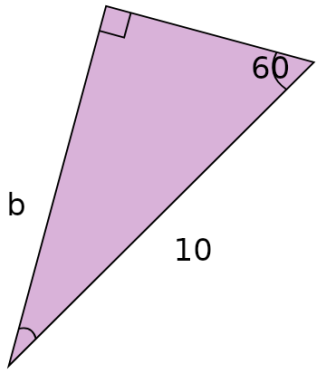
C

$$sin(\alpha) = 56.61$$

D

$$sin(\alpha) = 0.96$$

38 Solve for the side length in decimal form by calculating the trigonometric ratio



A $b = \frac{0.87}{5}$

B $b = \frac{0.87}{10}$

C $b = 0.87 \times 8.7$

D $b = \frac{10}{0.87}$

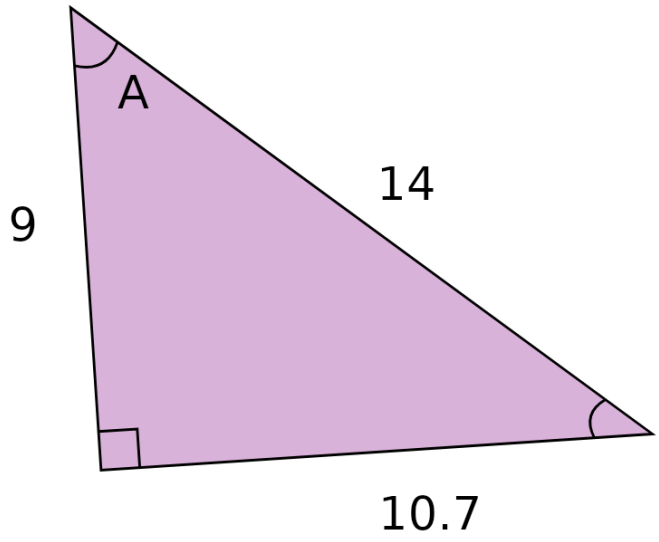
E $b = \frac{5}{0.87}$

F $b = 0.87 \times 10$

Name

Trigonometry Fundamentals - Practice

39 Solve for the trigonometric ratio in decimal form



A

$\sin(A) = 0.76$

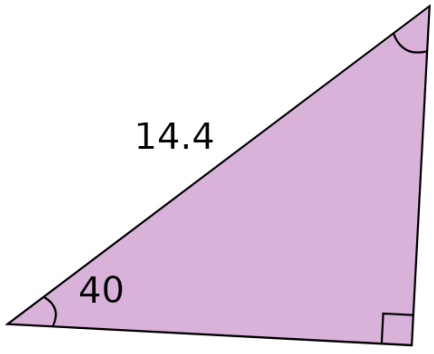
B

$\sin(A) = 0.25$

C

$\sin(A) = 0.17$

40 Solve for the side length with trigonometry



A $b = 11.0$

B $b = 6.6$

C $b = 12.1$

D $b = 13.2$

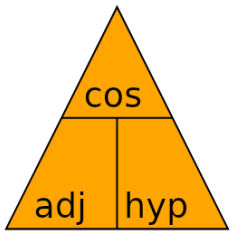
E $b = 14.3$

F $b = 8.8$

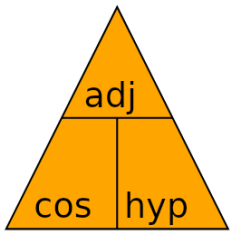
41 What fact family triangle would give this trigonometry fact?

$$\cos = \frac{\text{adj}}{\text{hyp}}$$

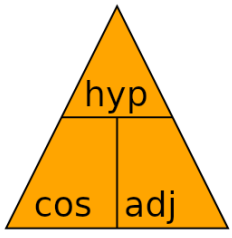
A



B



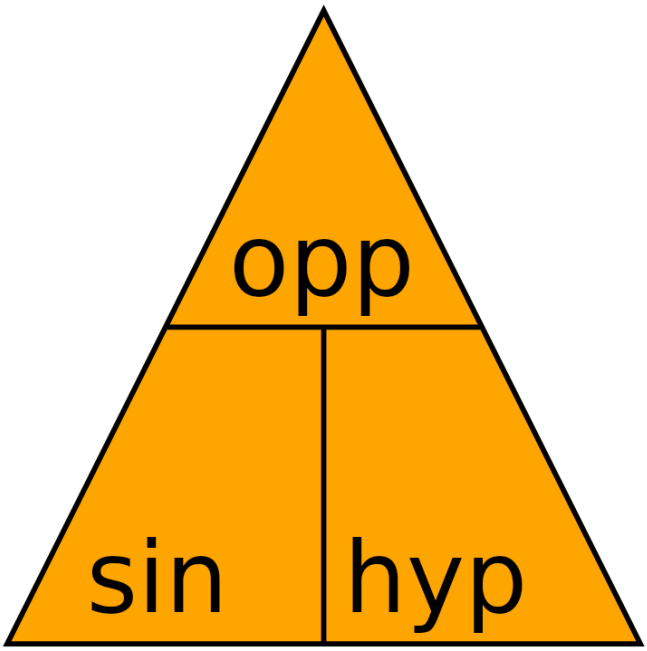
C



Name

Trigonometry Fundamentals - Practice

42 Which trigonometry fact comes from this fact family



A

$$\text{opp} = \frac{\text{hyp}}{\text{sin}}$$

B

$$\text{hyp} = \frac{\text{opp}}{\text{sin}}$$

C

$$\text{hyp} = \frac{\text{sin}}{\text{opp}}$$

43 Solve for the ratio of lengths of line t over line m

t=6.5

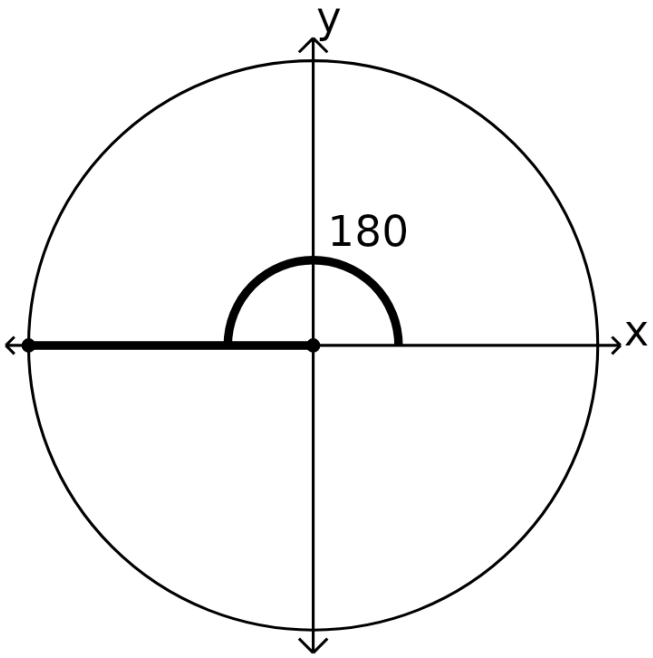
m=7.3

$$\frac{t}{m} = ?$$

A	$\frac{t}{m} = 0.29$	B	$\frac{t}{m} = 3.44$
C	$\frac{t}{m} = 0.11$	D	$\frac{t}{m} = 0.89$
E	$\frac{t}{m} = 1.49$	F	$\frac{t}{m} = 2.04$

Trigonometry Fundamentals - Practice

44 How many radians is this angle (180° = π radians)?



A

π rad

B

$\frac{2\pi}{3}$ rad

45 Solve for the ratio of lengths of line w over line x

w=7.6

x=4.7

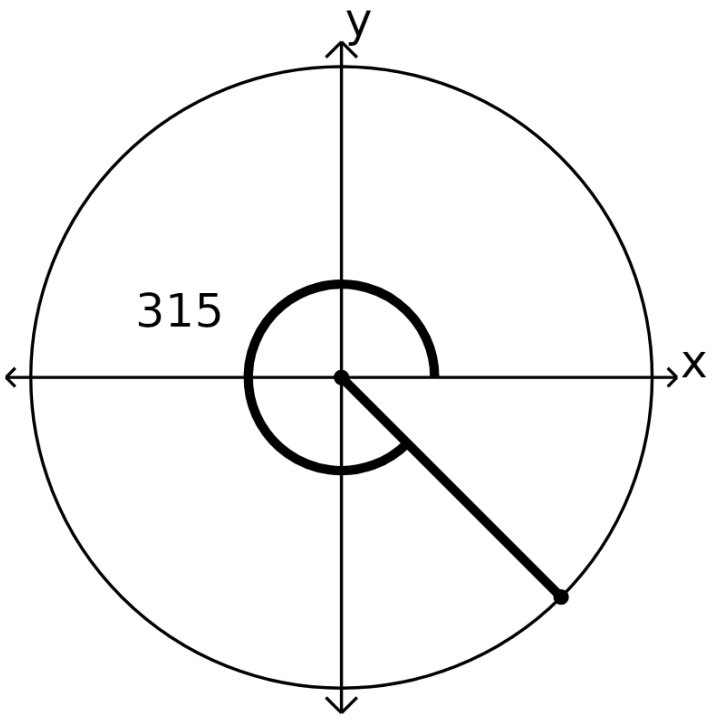
$\frac{w}{x}$ =?

A $\frac{w}{x} = 1.617$	B $\frac{w}{x} = 2.417$
C $\frac{w}{x} = 0.706$	D $\frac{w}{x} = 1.621$
E $\frac{w}{x} = 0.822$	F $\frac{w}{x} = 0.496$

Name

Trigonometry Fundamentals - Practice

46 How many radians is this angle (180° = π radians)?



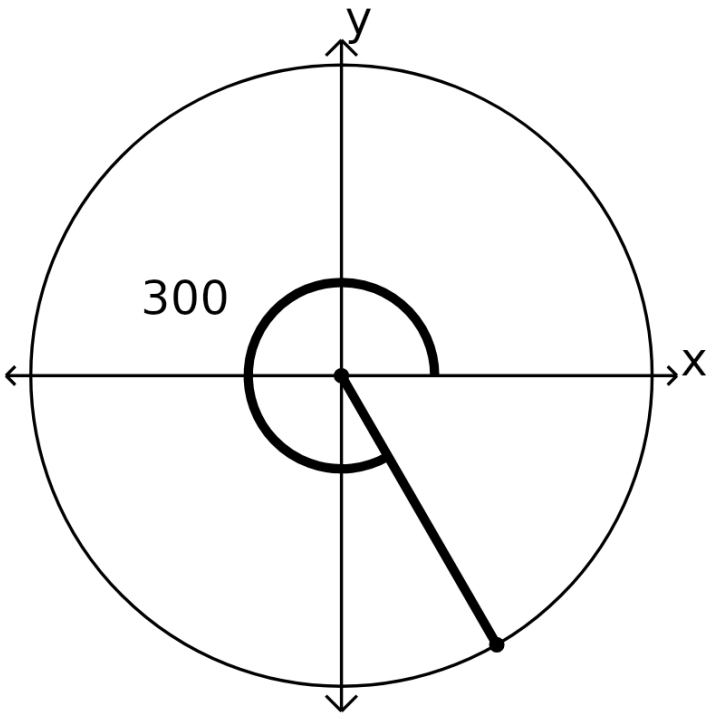
A

$\frac{7\pi}{4}$ rad

B

$\frac{3\pi}{2}$ rad

47 How many radians is this angle (180° = π radians)?



A

$\frac{11\pi}{6}$ rad

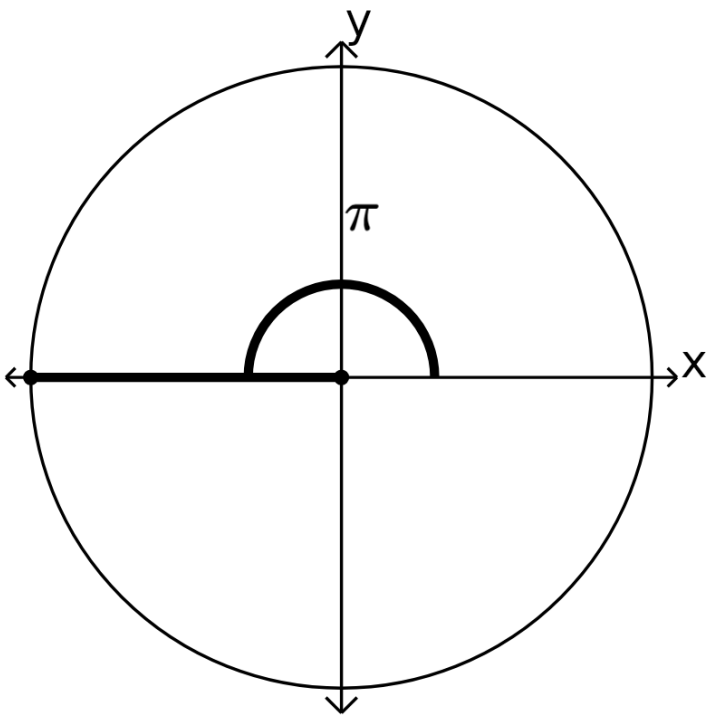
B

$\frac{5\pi}{3}$ rad

Name

Trigonometry Fundamentals - Practice

48 How many degrees is this angle (180° = π radians)?



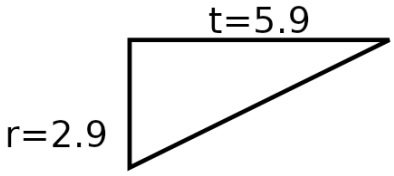
A

225°

B

180°

49 Solve for the ratio of lengths of line t over line r



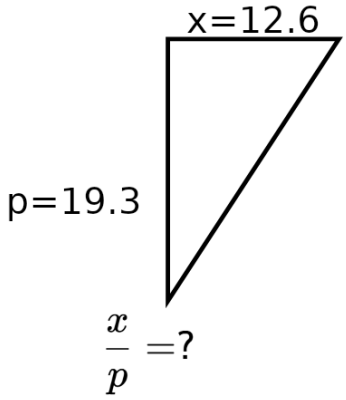
$$\frac{t}{r} = ?$$

A $\frac{t}{r} = 0.737$	B $\frac{t}{r} = 2.034$
C $\frac{t}{r} = 2.261$	D $\frac{t}{r} = 1.106$
E $\frac{t}{r} = 0.492$	F $\frac{t}{r} = 2.939$

Name

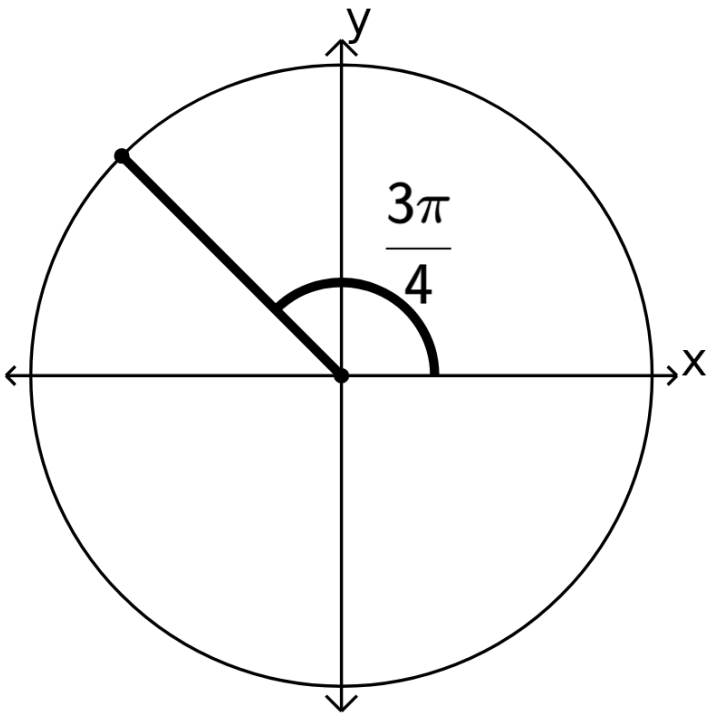
Trigonometry Fundamentals - Practice

50 Solve for the ratio of lengths of line x over line p



A	$\frac{x}{p} = 6.796$	B	$\frac{x}{p} = 0.453$
C	$\frac{x}{p} = 0.653$	D	$\frac{x}{p} = 0.853$
E	$\frac{x}{p} = 0.950$	F	$\frac{x}{p} = 18.922$

51 How many degrees is this angle (180° = π radians)?



A

180°

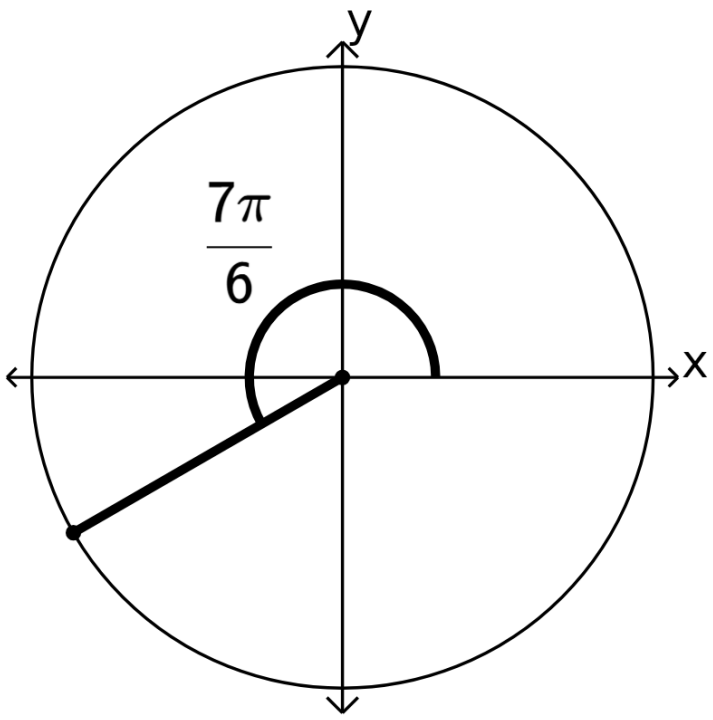
B

135°

Name

Trigonometry Fundamentals - Practice

52 How many degrees is this angle (180° = π radians)?



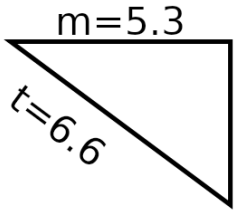
A

225°

B

210°

53 Solve for the ratio of lengths of line m over line t



$$\frac{m}{t} = ?$$

A $\frac{m}{t} = 1.403$	B $\frac{m}{t} = 0.603$
C $\frac{m}{t} = 0.803$	D $\frac{m}{t} = 0.997$
E $\frac{m}{t} = 1.658$	F $\frac{m}{t} = 0.003$

Name

Trigonometry Fundamentals - Practice

54 How many radians is this angle (180° = π radians)?

360°

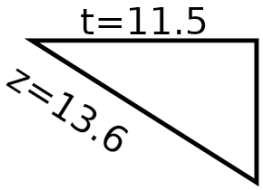
A	B
2π rad	$\frac{4\pi}{3}$ rad

55 How many radians is this angle (180° = π radians)?

360°

A	B
2π rad	$\frac{11\pi}{6}$ rad

56 Solve for the ratio of lengths of line z over line t



$\frac{z}{t} = ?$

A	B
$\frac{z}{t} = 1.183$	$\frac{z}{t} = 1.783$
C	D
$\frac{z}{t} = 0.632$	$\frac{z}{t} = 1.018$
E	F
$\frac{z}{t} = 1.716$	$\frac{z}{t} = 0.723$

57 How many radians is this angle (180° = π radians)?

225°

A	B
$\frac{5\pi}{4}$ rad	$\frac{3\pi}{2}$ rad

58 How many radians is this angle (180° = π radians)?

2π rad

A	B
360°	270°



Trigonometry Fundamentals - Practice

59 Solve for the ratio of lengths of line w over line n

$$w=2.7$$

$$n=1.1$$

$$\frac{w}{n}=?$$

A	$\frac{w}{n}=3.273$	B	$\frac{w}{n}=0.333$
C	$\frac{w}{n}=2.455$	D	$\frac{w}{n}=0.733$
E	$\frac{w}{n}=0.282$	F	$\frac{w}{n}=1.636$

60 Solve for the ratio of lengths of line t over line r

$$t=16.2$$

$$r=6.9$$

$$\frac{t}{r}=?$$

A	$\frac{t}{r}=1.565$	B	$\frac{t}{r}=1.826$
C	$\frac{t}{r}=2.348$	D	$\frac{t}{r}=1.043$
E	$\frac{t}{r}=0.319$	F	$\frac{t}{r}=0.958$

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Name

Trigonometry Fundamentals - Practice

61 How many radians is this angle (180° = π radians)?

$$\frac{3\pi}{4}\ \text{rad}$$

A: 180°

B: 135°

62 How many radians is this angle (180° = π radians)?

$$\frac{\pi}{4}\ \text{rad}$$

A: 45°

B: 90°

63 What quadrant is this angle in?

$$225°$$

A: *III*

B: *IV*

C: *II*

D: *I*

64 Which angle would be in this quadrant?

II

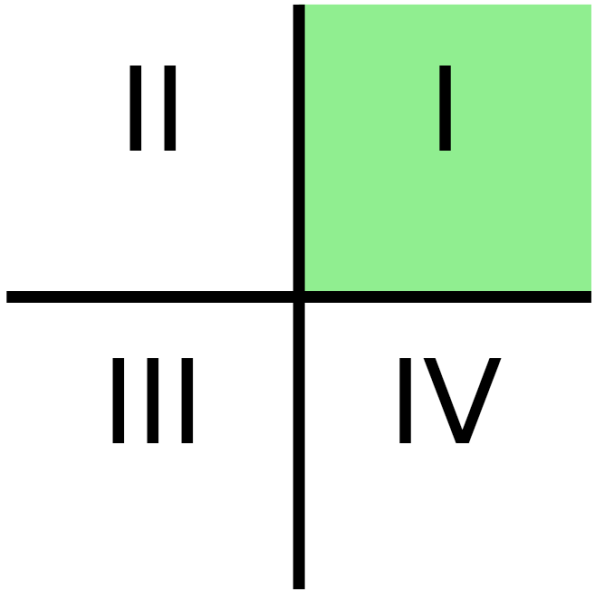
A: 150°

B: 330°

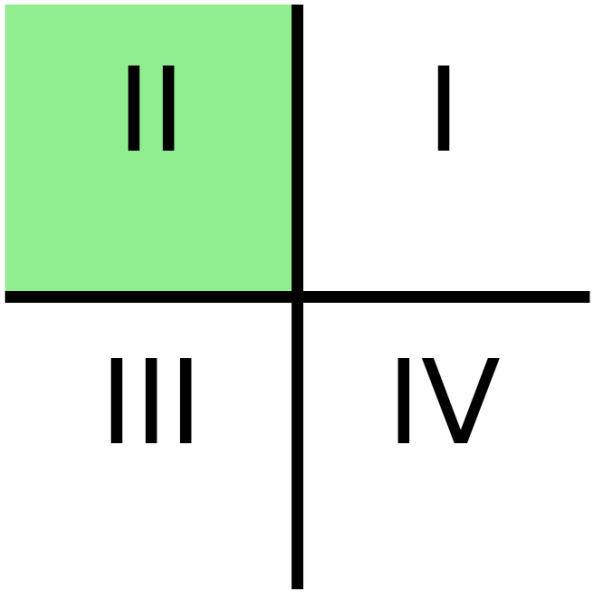
65 Which image shows the quadrant that this angle is in?

$$120°$$

A



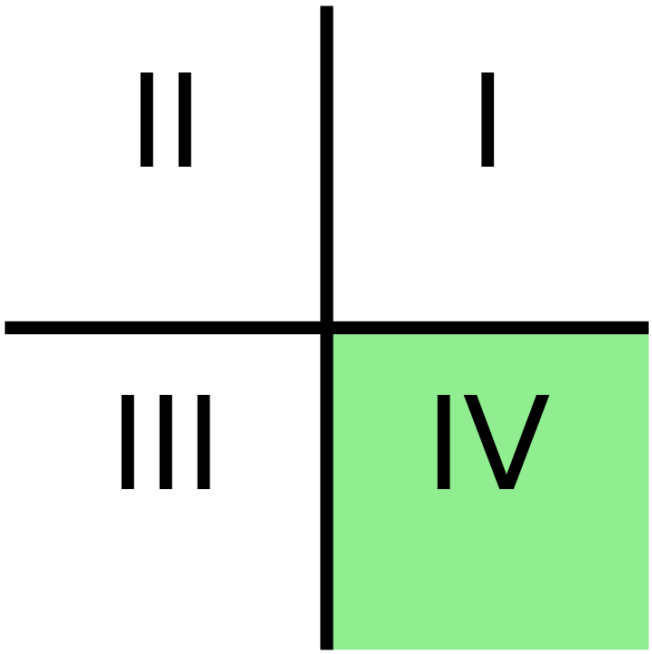
B



Name

Trigonometry Fundamentals - Practice

66 Which angle would be in this quadrant?



A

$60°$

B

$300°$

67 What quadrant is this angle in?

$$\frac{5\pi}{4} \text{ rad}$$

A

II

B

IV

C

I

D

III

68 Which angle would be in this quadrant?

I

A

$\frac{3\pi}{4}$ rad

B

$\frac{\pi}{4}$ rad