Name

Trigonometry - Solving Triangles - Practice

1 Solve for the trigonometry ratio given the values

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

A	$sin(\alpha) = 0.96$
B	$sin(\alpha) = 1.04$
C	$sin(\alpha) = 0.77$
D	$sin(\alpha) = 56.61$

2 Solve for the angle in degrees given the values

$$hyp = 9.3$$
$$adj = 6$$
$$\lambda = ?^\circ$$

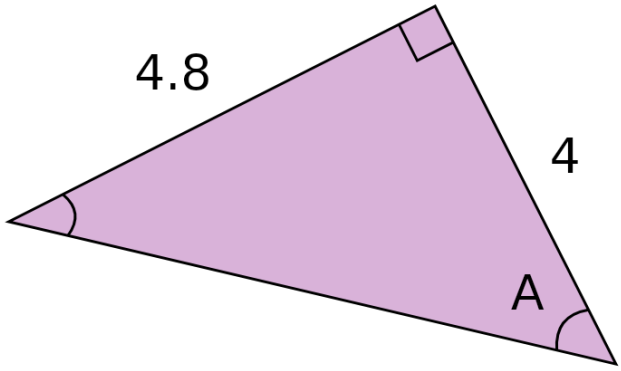
A	$\lambda = 70^\circ$
B	$\lambda = 35^\circ$
C	$\lambda = 55^\circ$
D	$\lambda = 50^\circ$

3 Solve for the side indicated

$$\mu = 45^\circ$$
$$opp = 6$$
$$hyp = ?$$

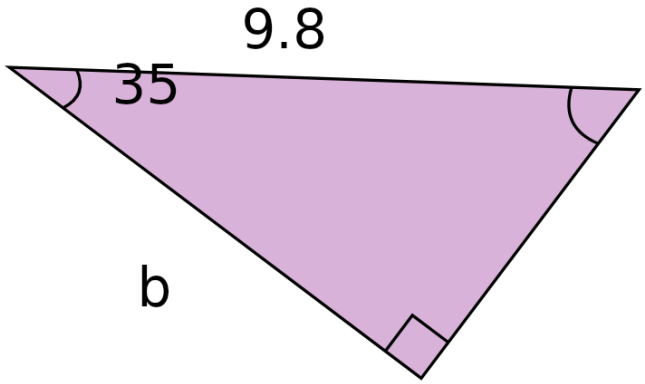
A	$hyp = 7.6$	B	$hyp = 8.5$
C	$hyp = 11.0$	D	$hyp = 11.9$
E	$hyp = 5.9$	F	$hyp = 9.3$

4 Solve for the angle in degrees with trigonometry



A	$A = 65^\circ$	B	$A = 50^\circ$
C	$A = 45^\circ$	D	$A = 70^\circ$
E	$A = 40^\circ$		

5 Solve for the side length with trigonometry



A	$b = 10.4$	B	$b = 5.6$
C	$b = 8.0$	D	$b = 6.4$
E	$b = 9.6$	F	$b = 8.8$

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

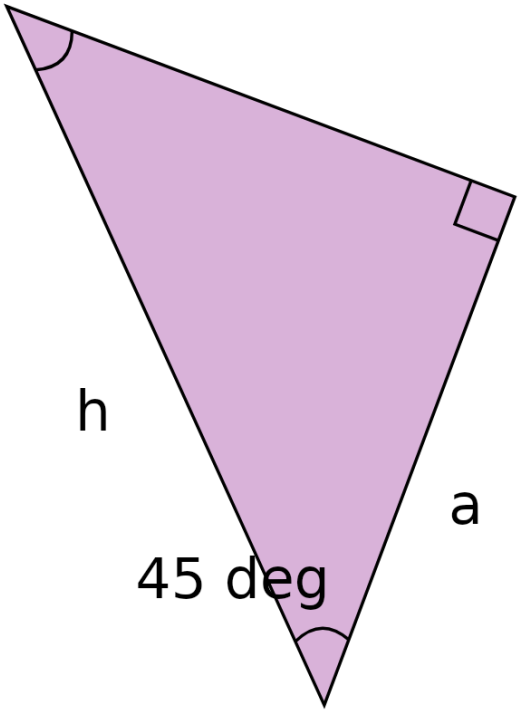
$$\sin(85°) = ?$$

A 0.65	B 1.688	C 1.342
D 0.996	E 0.477	F 1.515

7 Calculate the angle in degrees, given the trigonometric ratio

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

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



A

$$\frac{\mathrm{a}}{\mathrm{h}} = 0.28$$

B

$$\frac{\mathrm{a}}{\mathrm{h}} = 0.71$$

C

$$\frac{\mathrm{o}}{\mathrm{h}} = 170.31$$

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

$$\frac{\mathrm{opp}}{\mathrm{adj}} = \frac{1.61}{6}$$

A	35 deg	B	0 deg
C	25 deg	D	5 deg
E	15 deg	F	30 deg

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

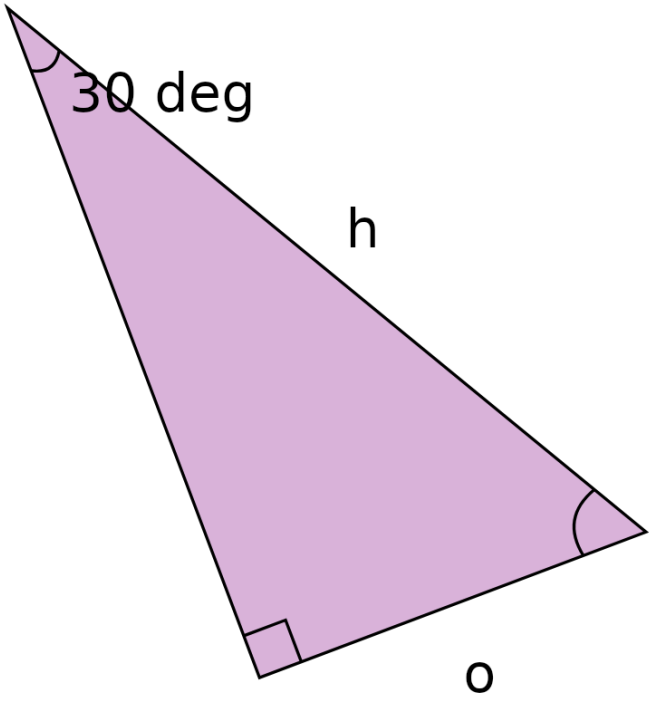
$$\frac{\mathrm{adj}}{\mathrm{hyp}} = 0.643$$

A	65 deg	B	40 deg
C	55 deg	D	60 deg
E	50 deg	F	70 deg

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11 Visually approximate the Sine of the given angle



A

$\sin(30) = 0.93$

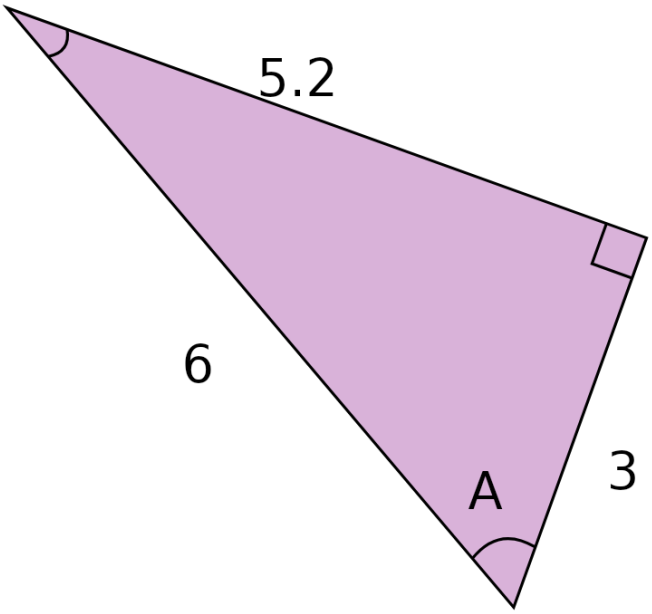
B

$\sin(30) = 1.51$

C

$\sin(30) = 0.50$

12 Solve for the trigonometric ratio in fraction form



A

$\tan(A) = \frac{5.2}{3}$

B

$\tan(A) = \frac{6}{6}$

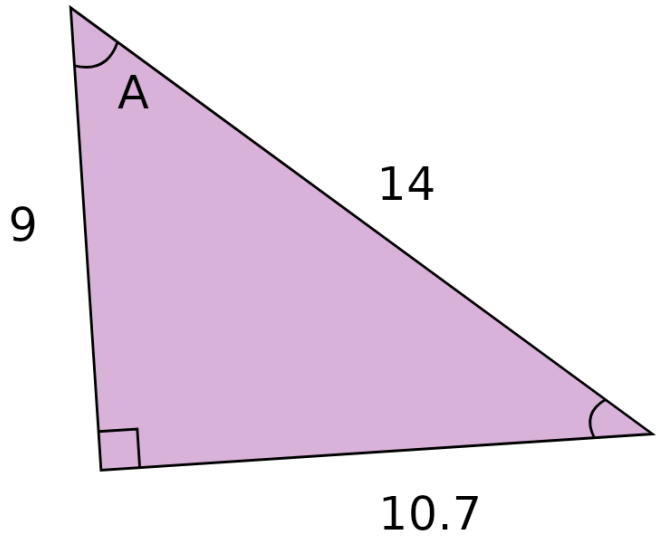
C

$\tan(A) = 3 \times 3$

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13 Solve for the trigonometric ratio in decimal form



A

$$\sin(A) = 0.25$$

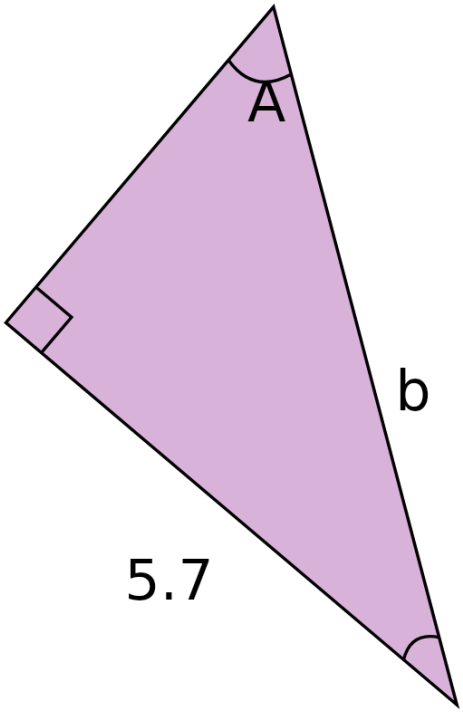
B

$$\sin(A) = 0.76$$

C

$$\sin(A) = 0.17$$

14 Solve for the side length in ratio form



A

$$b = \frac{5.7}{sin(A)}$$

B

$$b = \frac{sin(A)}{5.7}$$