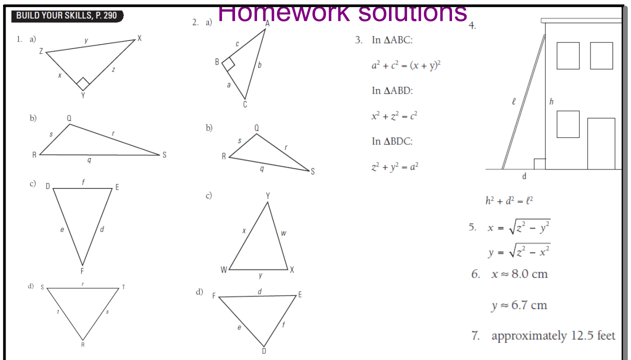
Homework solutions



May 18-10:59 AM

GMF 10 Lesson 8.2 (1)

The Sine Ratio 8.2

Mental Math and Estimation

In a right triangle, if the hypotenuse is 20 in and one leg is 12 in, how long is the other leg?

Is it a Pythagorean triple?

Nov 29-3:27 PM

Ratio: a comparison between two numbers with the same units.

Feb 13-4:41 PM

Pythagorean Theorem was used to calculate the size of an unknown side when the other two sides were known in a right triangle.

May 8-11:01 PM

Is the triangle formed in the middle with side lengths 9cm-12cm-15cm a right triangle? Prove that the triangle formed is a right triangle.

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

$9^2 + 12^2 = 15^2$

Oct 31-9:37 AM

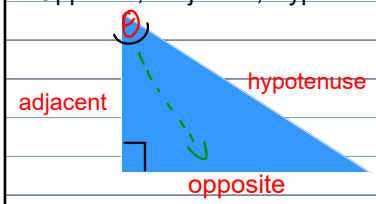
Trig ratios are used to calculate a missing side in a right triangle when you have one side and a reference angle.

Trig ratios are used to calculate an angle measurement when you have two sides. $(\theta - theta)$

Feb 13-4:41 PM

Identifying sides of a right triangle

- Sides are identified relating to a reference angle.
- Opposite, Adjacent, Hypotenuse



Feb 13-4:41 PM

GMF 10 8.2 (2) Sine Ratio – Finding Unknown Side Lengths

Examples/Notes Sine = Opposite / Hypotenuse Name: _____

- Find the reference angle
- Label sides – opposite, adjacent & hypotenuse in relation to the reference angle
- Set up your ratio
- Fill in known values
- Solve equation for unknown

A. R, T, S; 3.5 cm; 25°; hyp, opp, adj

$\sin 25° = \frac{opp}{hyp}$

$0.4226 = \frac{r}{3.5}$

$r = 0.4226(3.5)$

$r = 1.5$ cm

B. H, J, K; 6.2 cm; 51°; opp, hyp, adj

$\sin 51° = \frac{0.7}{hyp}$

$0.777 = \frac{6.2}{j}$

$j = \frac{6.2}{0.777}$

$j = 8$ cm

Nov 19-8:47 AM

Practice
GMF 10

8.2 Sine Worksheet Date____

Find the value of each trigonometric ratio to the nearest ten-thousandth.

1) sin 46° 2) sin 84°

Find the missing side. Round to the nearest tenth.

3) 72°, x, 10 — 9.5

4) 43°, x, 9 — 6.1

5) 47°, x, 8 — 10.9

6) 65°, 11, x — 12.1

Nov 19-8:50 AM

Homework

Pg. 298 Q. 1 & 2

Pg. 300 Q. 4 - 6

Sine Ratio worksheet

Trigonometry - Finding sides (1)

Dec 2-11:52 AM