

Recall: Exponents

$5^2 = 25$
 $5^3 = 125$
 $3^4 = 81$
 $3 \times 3 \times 3 \times 3 = 81$

Opposite Squared

Square Root $\sqrt{\quad}$

$\sqrt{36} = \sqrt{6^2}$
 $6 = 6$

Estimating Roots

$\sqrt{49} = 7$

$\sqrt{36} = 6$
 $6 \times 6 = 36$
 $5 \times 5 = 25$
 -5.3

$\sqrt{64} = 8$

Finds what number times the original value

Pythagorean Theorem and SA/Volume

S.A
- wrap something
- triangle
- tile a floor

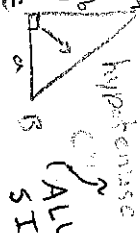
$A_{\Delta} = \frac{1}{2}bh$
 $A_{\square} = l \times w$

Triangular Prism
Rectangular Prism

Right angle triangles ONLY

- helps you solve for an unknown side

$a^2 + b^2 = c^2$
leg² + leg² = hyp²
 $c^2 - a^2 = b^2$
Solves for unknown leg



ALWAYS THE LONGEST SIDE



$c^2 - a^2 = b^2$
 $8^2 - 36^2 = b^2$
 $\sqrt{67} = b$

Volume
How much space is inside
 $V_{\square} = l \times w \times h$
 $V_{\Delta} = \frac{1}{2}l \times w \times h$

W.P
- cubic meters
- liquid can fit
- space inside of something

Chloe

Pythagorean theorem / surface area and Volume

is used with right angle triangles to find an unknown side



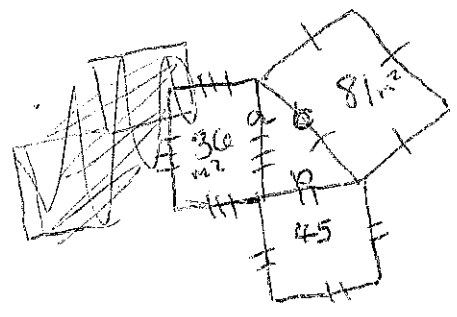
* the hypotenuse is always across from the right angle.

the hyp. is always the longest side.

if a leg is bigger than hyp you made a mistake

Solving for hyp $\begin{cases} a^2 + b^2 = c^2 \\ \text{leg}^2 + \text{leg}^2 = \text{hyp}^2 \end{cases}$

Solving for unknown leg $\begin{cases} c^2 - a^2 = b^2 \end{cases}$



~~81 - 36 = b~~
 $81 - 36 = b^2$
 $\sqrt{45} = \sqrt{b^2}$
 $6.7 = b$

REVIEW

W.P. S.A + Volume

- ↳ triangular Prism
- ↳ rectangular Prism
- ↳ trapezoidal Prism?

} area of the sides.

W.P

(word Problems)

- Paint
- wrap
- shingle roof
- tile floor
- cover a surface

- how much liquid can fit
- space inside

Recap

finds what it x itself gives the original value eg $\sqrt{36}$ is 6 because 6×6 is 36

$\frac{\sqrt{64} \times 8}{8 \times 8} = 64$

estimating roots

$\sqrt{40} \cong 6.3$ | $6 \times 6 = 42$

Formulas

$a^2 + b^2 = c^2$ (Py)
 $c^2 - a^2 = b^2$

$V = l \times w \times h$

$A = l \times w / b \times h \times 2$ ($\frac{bh}{2}$)

~~$P = s + s + s + s + s + s$~~

Recall

$5^2 = 5 \times 5$ $3^3 = 3 \times 3 \times 3$ exponents

opposite Squaring is Square root $\sqrt{\quad}$
 $\sqrt{a^2} = a$ $a = 6$