

Today's Plan

check HW significant figures/go over answers
information on solving equations/ converting units
Book Exercise

Warm- Up

Complete each of the following calculations giving the correct number of SF in your answer:

1) $22.37 \text{ cm} \times 3.10 \text{ cm} \times 85.75 \text{ cm} =$

2) $12.4\text{km} + 8\text{km} - 10\text{km} =$

3) $2000/59$

4) $120 - 7.08 =$



Worksheet - Significant Figures Answers

Solving Equations

sometimes when solving equations the unknown variable is mixed in with the other variables and you need to rearrange the equation to solve for that unknown

i.e. $v = d \times t$

you want to solve for **d**

$$\frac{v}{t} = d$$

you are multiplying by t so you need to divide to remove it (you must complete the opposite function)

$$\text{i.e. } A = \frac{1}{2} b \times h$$

and you want to solve for **b**

you need to remove everything on the right except **b** by using the opposite operation

$$2A = b \times h$$

now we need to eliminate h so we can \div by h

$$b = \frac{2A}{h}$$

i.e. $C = 2\pi r$ solve for **r**

$$\frac{C}{2} = \pi r$$

$$\frac{C}{2\pi} = r$$

Try This:

$$A = \frac{1}{2} bh$$

solve for h

Converting Units:

You need to multiply by conversion factors which are memorized or referenced

i.e. $1\text{m} = 100\text{cm}$

$1\text{ min} = 60\text{ sec}$

$1\text{ hr} = 60\text{ min}$

$1000\text{m} = 1\text{ km}$

Converting time and distances:



To change kilometers (km) to meters (m) you multiply by _____.

To change hours (h) to seconds (s) you multiply by _____.

Therefore, to change km/h to m/s you divide by _____.

And to change m/s to km/h you multiply by _____.

Attachments

S10 sig figs answers.notebook