

3.1 Math 10AW - notes

Fraction review:

Add & subtract * bottoms must be the same

$$\frac{1}{4} + \frac{1}{2}$$

① find lowest common denominator by listing multiples

$$2 - 2, 4, 6, 8$$

$$4 - 4, 8$$

* lowest common denominator

② Ask what did you have to do to bottom to get 4

$$\frac{1}{4} \leftarrow \text{already } \frac{1}{4} \text{ so nothing}$$

$$\frac{1}{2} \rightarrow \times 2 \begin{matrix} * \text{mult top} \\ * \text{bottom} \end{matrix} = 4$$

$$\therefore \frac{1}{2} \times 2 = \frac{2}{4}$$

③ now that bottoms are the same you can add * remember only add tops

$$\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$$

Multiply fraction - must only be 2 numbers

a whole number can be put over 1 $\Rightarrow 3 = \frac{3}{1}$

so make mixed numbers into improper fractions

$$1\frac{1}{2} = 1 \times 2 + 1 = \frac{3}{2}$$

ex

$$2\frac{3}{4} \times \frac{1}{2} = \frac{11}{4} \times \frac{1}{2} = \frac{11}{8} \text{ or } 1\frac{3}{8}$$

$$2 \times 4 + 3 = 11$$

mult across.

$$\hookrightarrow 11 \div 8 = 1 \text{ with } 3 \text{ left over.}$$

To divide fractions

- ① Convert to improper fractions like multiplying
- ② Flip over the 2nd number

ex $\frac{1}{2} \div \frac{3}{4} = \frac{1}{2} \times \frac{4}{3} = \text{now mult across} = \frac{4}{6} \text{ or } \frac{2}{3}$

→ both can be reduced by 2 (∴)

3.2 Decimals

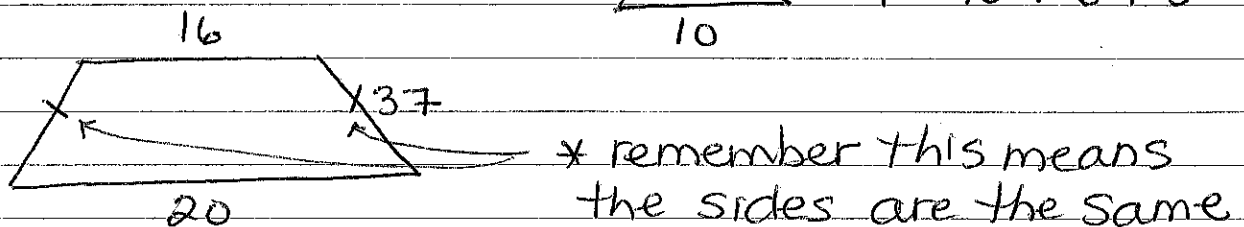
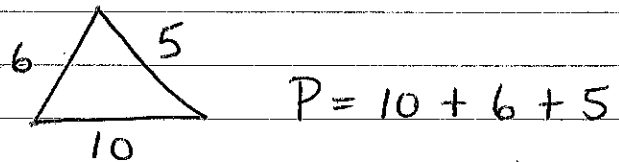
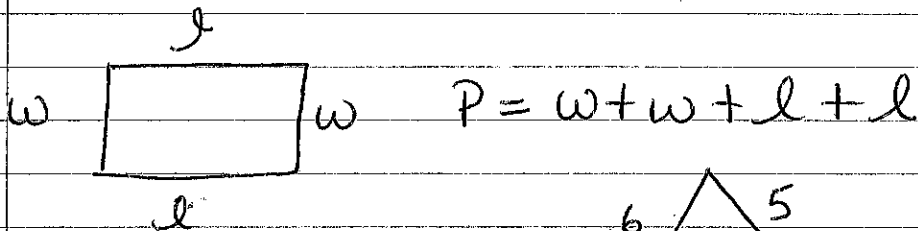
ex 1.92 m → inches 1 inch = 2.54 cm
 ↳ convert to cm × 100 1 m = 100 cm
 192 cm → inches (* ∴ because ←)

$$192 \div 2.54 = 75.59 \text{ inches}$$

~ 76 inches long

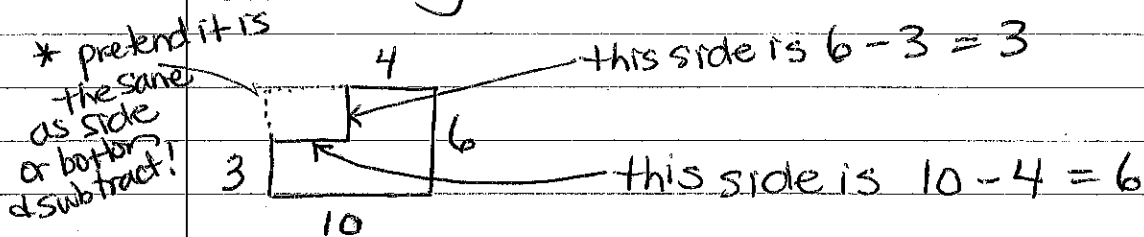
[3.4] Math 10 AW - notes

perimeter — add all outside measurements

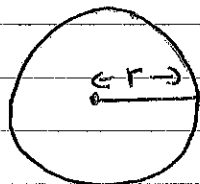
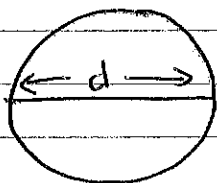


$$P = 16 + 20 + 37 + 37$$

Missing sides



[3.5] Circumference (Perimeter of a circle!)



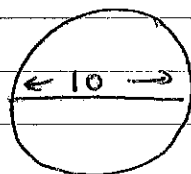
$$r = \frac{d}{2}$$

$$\pi = 3.14$$

or use π button
on your calculator

$$C = \pi d \quad \text{or} \quad C = 2\pi r$$

ex



$$\begin{aligned} C &= \pi d \\ C &= \pi(10) \\ &= 31.4 \end{aligned}$$

$$\begin{aligned} C &= 2\pi r \\ &= 2(3.14)(5) \\ &= 31.4 \end{aligned}$$