Perimeter and Area

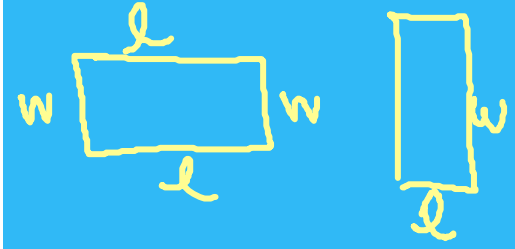
- Area - # of square units needed to cover a surface

  * only found on 2-D figures (flat)

- Perimeter - distance around an object

***USE FORMULAS!!**

Rectangle $A = lw$ $P = 2l + 2w$



Square $A = s^2$ or $A = s \times s$ $P = 4s$

Find area & perimeter of each.

1) 4.2 in wide, 4.8 in long

* USE FORMULA!
Draw pic. if needed!

$P = 2l + 2w$

$P = 2(4.8) + 2(4.2)$

$P = 9.6 + 8.4$

$P = 18$ in

$4.8 \times 2 = 9.6$ $\quad 4.2 \times 2 = 8.4$

$9.6 + 8.4 = 18.0$

$A = lw$

$A = 4.8(4.2)$

$A = 20.16 in^2$

4.8

2) side = 3.4m

$P = 4s$

$P = 4(3.4)$

$P = 13.6m$

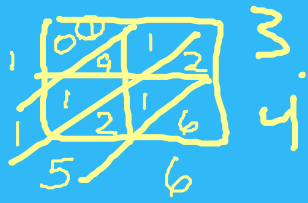
$\begin{array}{r} 3.4 \\ \times\ 4 \\ \hline 13.6 \end{array}$

$A = s^2$

$A = 3.4(3.4)$

$A = 11.56 m^2$

3.4



3) 5mm wide, 47 mm long

$P = 2l + 2w$

$P = 2(47) + 2(5)$

$P = 94 + 10$

$\boxed{P = 104\text{mm}}$

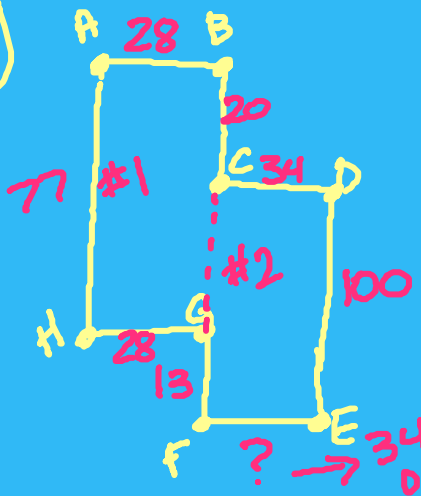
$A = lw$

$A = 47(5)$

$\boxed{A = 235\text{mm}^2}$

$$\begin{array}{r} {}^{3}47 \\ \times\ 5 \\ \hline 235 \end{array}$$

4)



$\overline{AB} = 28mm$ $\overline{EF} = 34mm$

$\overline{BC} = 20mm$ $\overline{FG} = 13mm$

$\overline{CD} = 34mm$ $\overline{GH} = 28mm$

$\overline{DE} = 100mm$ $\overline{AH} = 77mm$

$\overline{EF}$ = 34 bec. opposite sides of rect. are same

P = 28 + 20 + 34 + 100 + 31 + 13 + 28 + 77 = 334

$P = 334mm$

#1 $A = lw$

$A = 28(77)$

$A = 2156mm^2$

#2 $A = lw$

$A = 34(100)$

$A = 3400mm^2$

Add bec. really 1 fig. so have 1 area

2156 + 3400

$A = 5556 mm^2$

From HW NS

11) 

$$7\tfrac{1}{6} + 7\tfrac{1}{6} = 14\tfrac{2}{6} = 14\tfrac{1}{3}\text{ mm}$$

$l = 7\frac{1}{6}$ mm

$w = 6\frac{2}{5}$ mm

$P = 27\frac{2}{15}$ mm

$$27\tfrac{2}{15} = \tfrac{17}{15}$$

$$-\,14\tfrac{1}{3} = \tfrac{5}{15}$$

$$12\tfrac{12}{15} = 12\tfrac{4}{5}$$

for both widths → ÷ by 2

$$12\tfrac{4}{5} \div 2$$

$$\tfrac{64}{5} \div \tfrac{2}{1}$$

$$\tfrac{32}{5} \cdot \tfrac{1}{2} = \tfrac{32}{5}$$

$6\frac{2}{5}$ mm

13)

$l = 2\frac{1}{6}$ cm

$w = 9\frac{1}{2}$ cm

$A = 20\frac{7}{12}$ cm^2

$A = lw$

$20\frac{7}{12} = 2\frac{1}{6}w$

$\left(\frac{6}{13}\right)\frac{247}{12} = \frac{13}{6}w\left(\frac{6}{13}\right)$

$\frac{19}{2} = w$

$9\frac{1}{2}$cm $= w$

$\frac{12}{\times 20}$

240

$13\overline{)247}$ → 19

-13

117

-117

0