

$[3-5] + [2-1]$ Area of squares, rectangles, parallelograms
+ trapezoids. Perimeter of rectangles/squares

• Area - number of square units needed to cover
an object

• Perimeter - distance around an object

* Formulas:

rectangle

$$A = lw$$

$$P = 2l + 2w$$

OR

$$P = 2(l+w)$$


square

$$A = s^2 \text{ or } A = S \times S$$

$$P = 4s$$

Find the area & perimeter

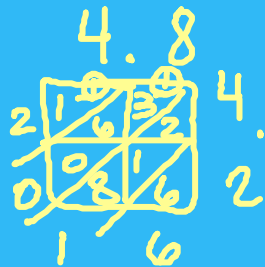
1) 4.2 in wide, 4.8 in long

***MUST USE FORMULA!**
Draw pic. if need to!

$$A = lw$$

$$A = 4.8(4.2)$$

$$A = 20.16 \text{ in}^2$$



$$P = 2l + 2w$$

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

$$P = 9.6 + 8.4$$

$$P = 18 \text{ in}$$

OR

$$\begin{array}{r} 9.6 \\ + 8.4 \\ \hline 18.0 \end{array}$$

$$P = 2(l + w)$$

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

$$P = 2(9)$$

$$P = 18 \text{ in}$$

$$\begin{array}{r} 4.8 \\ + 4.2 \\ \hline 9.0 \end{array}$$

$$2) \text{ Area} = 20\frac{7}{12} \text{ cm}^2, \text{ l} = 2\frac{1}{6} \text{ cm}, \text{ w} = \underline{\hspace{2cm}}$$

$$A = lw$$

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

$$\begin{array}{r} 12 \\ 20 \\ \hline 240 \end{array}$$

$$\frac{247}{12} = \frac{13}{6} w$$

$$\frac{19}{12} \left(\frac{247}{12} \right) = \frac{13}{6} w \left(\frac{6}{12} \right)$$

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

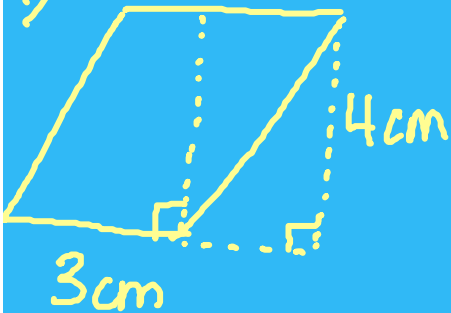
$$\begin{array}{r} 19 \\ 13 \overline{) 247} \\ \underline{-13} \\ 117 \\ \underline{117} \\ 0 \end{array}$$

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

Parallelogram $A = bh$

* height NOI slanted - must form 90° angle

1)



$$A = bh$$

$$A = 3(4)$$

$$A = 12 \text{ cm}^2$$

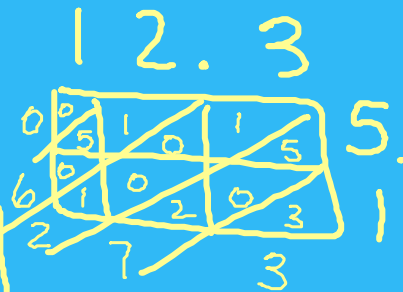
2)



$$A = bh$$

$$A = 12.3(5.1)$$

$$A = 62.73 \text{ cm}^2$$



2)



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

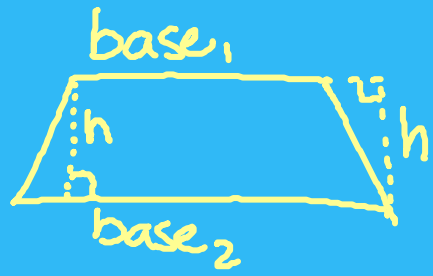
$$A = \frac{5.4 \times 6}{2}$$

$$A = 16.2 \text{ cm}^2$$

$$\begin{array}{r} 5.4 \\ \times 3 \\ \hline 16.2 \end{array}$$

Trapezoids

$$A = \frac{h(b_1 + b_2)}{2} \text{ OR } A = \frac{1}{2}h(b_1 + b_2)$$





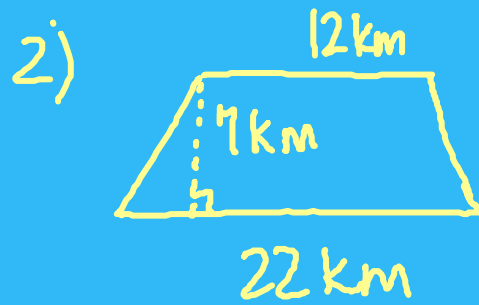
$$A = \frac{h(b_1 + b_2)}{2}$$

$$A = \frac{3.5(5 + 9)}{2}$$

$$A = \frac{3.5(14)}{2}$$

$$A = 24.5 \text{ cm}^2$$

$$\begin{array}{r} 3.5 \\ \times 7 \\ \hline 24.5 \end{array}$$



$$A = \frac{h(b_1 + b_2)}{2}$$

$$A = \frac{7(12 + 22)}{2}$$

$$A = \frac{7(34)}{2}$$

$$A = 119 \text{ km}^2$$

$$\begin{array}{r} 17 \\ \times 7 \\ \hline 119 \end{array}$$