Lesson 14-1 → Area of Compound 2D Figures

Review

① Area of Rectangle

$A = \text{length} \times \text{width}$

$A = LW$

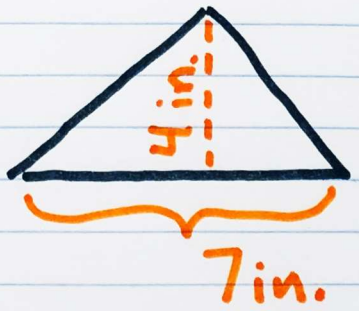
$A = 2 \times 10$

$A = 20 \text{ sq. in.}$

② Area of Triangle

$A = \text{base} \times \text{height} \div 2$

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



$A = 7 \times 4 \div 2$

$A = 14 \text{ sq. in.}$

③ Area of Parallelogram

$A = \text{base} \times \text{height}$

$A = bh$

$A = 8 \times 5$

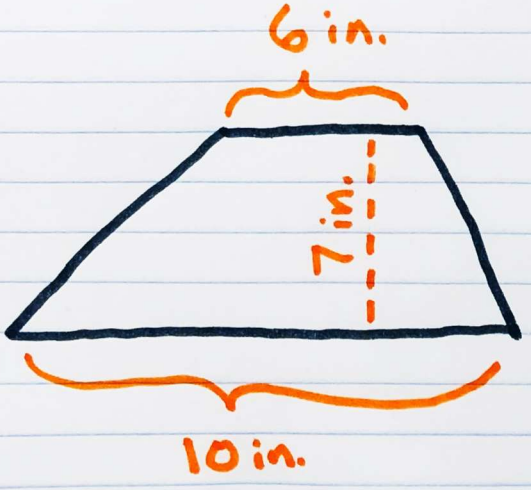
$A = 40 \text{ sq. in.}$

④ Area of Trapezoids

$A = (\text{average of bases}) \times \text{height}$

$A = \frac{\text{base1} + \text{base2}}{2} \times \text{height}$

$A = \frac{b1 + b2}{2} h$

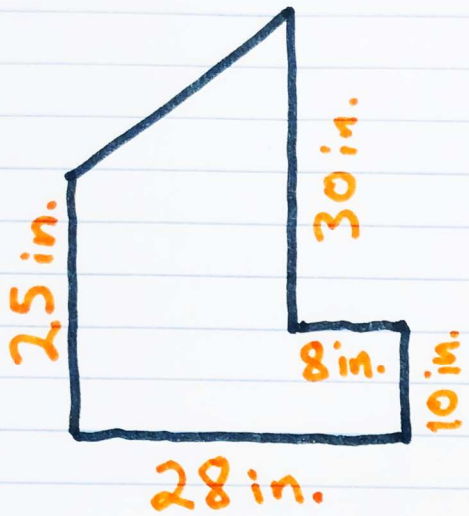


$A = \frac{(6+10)}{2} \times 7$

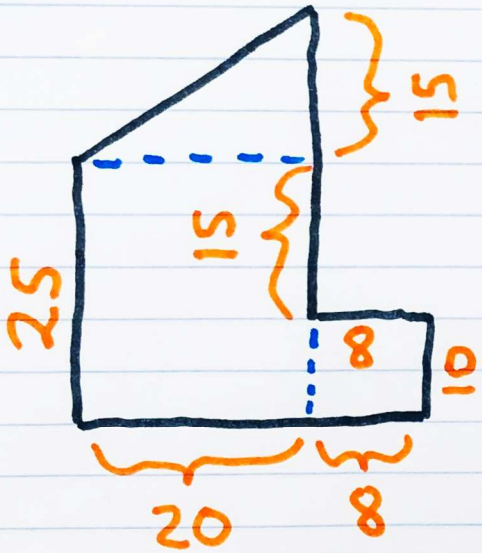
$A = \frac{16}{2} \times 7$

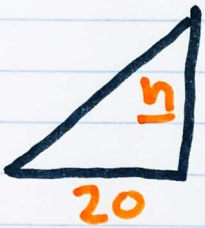
$A = 56 \text{ sq. in.}$

What is the total area of the figure below?



Hint! Divide into Rectangles and Triangles, which are easiest to work with!





$A = bh \div 2$
$A = 20 \times 15 \div 2$
$A = 150$ sq. in.

$A = LW$
$A = 25 \times 20$
$A = 500$ sq. in.

$A = LW$
$A = 10 \times 8$
$A = 80$ sq. in.

TOTAL AREA = $150 + 500 + 80$

TOTAL AREA = 730 sq. in.