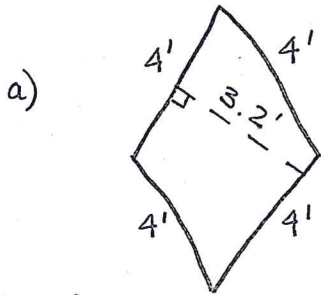


Problems for Study Session - Chapter 5 Test

① Show all of your work to find the area of each shape below:

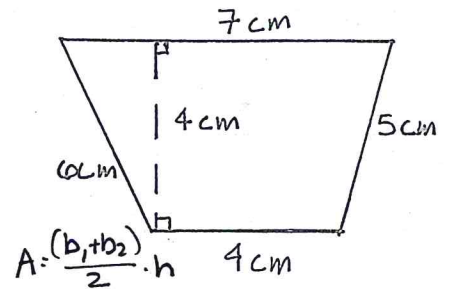


$$A = b \cdot h$$

$$A = 4(3.2)$$

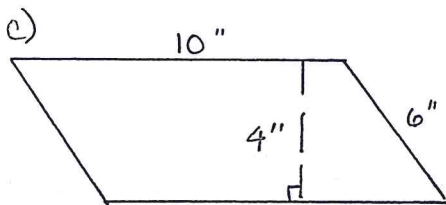
$$A = \boxed{12.8 \text{ sq'}}$$

A =



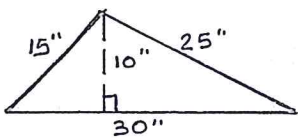
$$A = \frac{(b_1 + b_2)}{2} \cdot h$$

$$A = \frac{7+4}{2} \cdot 4 = \boxed{22 \text{ sq cm}}$$



$$A = b \cdot h$$

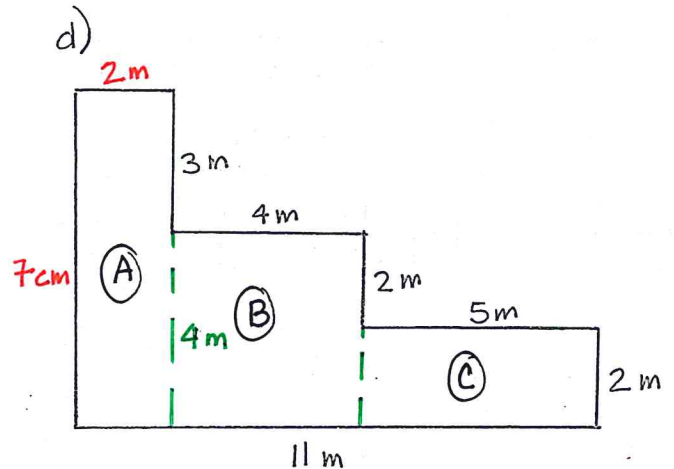
$$A = 10 \cdot 4 = \boxed{40 \text{ sq''}}$$



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

$$A = \frac{30 \cdot 10}{2} = \boxed{150 \text{ sq''}}$$

A =



$$A = \textcircled{A} = 2 \cdot 7 = 14$$

$$A = \textcircled{B} = 4 \cdot 4 = 16$$

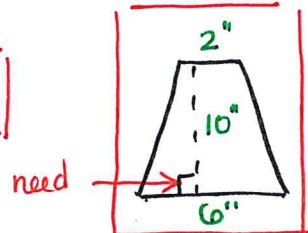
$$A = \textcircled{C} = 5 \cdot 2 = 10$$

$$\boxed{40 \text{ m}^2}$$

② A trapezoid has a height of 10'' and an area of 40 sq''. Draw one possibility for the shape of the trapezoid. Remember necessary labels.

$$A = \frac{(b_1 + b_2)}{2} \cdot h \text{ so } 40 = \frac{(b_1 + b_2)}{2} \cdot 10 \text{ and } \frac{b_1 + b_2}{2} \text{ must equal } 4.$$

$$\frac{8}{2} = 4 \text{ so } \boxed{b_1 + b_2 \text{ must equal } 8''}$$



$$\frac{6+2}{2} \cdot 10 = 40$$

③

$$a) \left(\frac{4}{5}\right)^3 = \frac{4 \cdot 4 \cdot 4}{5 \cdot 5 \cdot 5} = \boxed{\frac{64}{125}}$$

$$b) (4)(2\frac{1}{2})(1\frac{2}{3}) = \frac{2 \cancel{4} \cdot \cancel{8} \cdot \cancel{7}}{1 \cdot \cancel{2} \cdot \cancel{3}} = \boxed{14}$$

$$c) 30\% \text{ of } 1\frac{2}{3} = \frac{3}{10} \cdot \frac{8}{3} = \boxed{\frac{1}{2}}$$

$$d) .45 \text{ of } \frac{2}{3} = \frac{3 \cancel{15} \cdot \cancel{45}}{10 \cdot \cancel{50} \cdot \cancel{100}} \cdot \frac{2}{3} = \boxed{\frac{3}{10}}$$

$$e) (.05)^4 = \boxed{.00000625}$$

$$(.05)(.05)(.05)(.05) = .00000625$$

$$f) 5\% \text{ of } 6\% = \boxed{.003} \text{ or } \boxed{.3\%}$$

$$(.05)(.06) = .0030$$

$$g) (2.6)(.021) = \boxed{.0546}$$

$$\begin{array}{r} 2.6 \\ \cdot .021 \\ \hline 26 \\ 52 \\ \hline 546 \end{array}$$

$$h) (3\frac{1}{2})^3 = \frac{343}{8} = \boxed{42\frac{7}{8}}$$

$$\frac{7}{2} \cdot \frac{7}{2} \cdot \frac{7}{2} = \frac{243}{8} = \boxed{30\frac{3}{8}}$$

④ Calvin was hungry when he got home from school. His family had started an apple pie the night before and there was still one half of the pie left. Calvin ate $\frac{2}{5}$ of what was left of the pie. What fraction of the original pie did he eat?

$$\frac{2}{5} \text{ of } \frac{1}{2} = \frac{2}{5} \cdot \frac{1}{2} = \boxed{\frac{1}{5} \text{ of the pie}}$$

⑤ Jim, John, and Jay divided up a large pizza equally between them. Jim ate $\frac{3}{4}$ of his portion. How much of the original pizza did Jim eat?

$$\frac{3}{4} \text{ of } \frac{1}{3} = \frac{3}{4} \cdot \frac{1}{3} = \boxed{\frac{1}{4} \text{ of the pizza}}$$

⑥ Fill in the blank with the appropriate phrase. The choices are:

is always

is never

can be

a) A trapezoid

~~is never~~

a parallelogram

b) A square

is always

a rhombus

c) A rectangle

~~can be~~

a rhombus

d) A quadrilateral

~~can be~~

a rectangle

e) A rhombus

is always

a polygon

f) A parallelogram

~~can be~~

a square