

Study Guide - Geometry

Summative AB- Tues 4/15; CD-Thurs 4/16

Key

In order to be prepared for the summative you should:

1. Start preparing soon. Don't wait until the night before, this way you can get the help you need. Ask a parent or friend for help or come see Mrs. Waincott!

2. Look over the math papers you have for this unit.

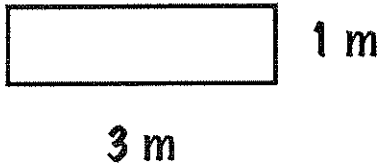
(formatives, homework worksheets)

What did you miss? Do you understand it now?

Make up some new problems and have a friend or parent check you.

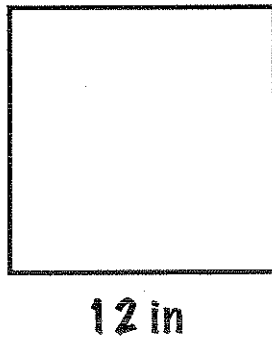
3. Review your Equations Flip Book to make sure you know your equations.

Calculate the area and perimeter of the shapes below. Be sure to label with the correct units.



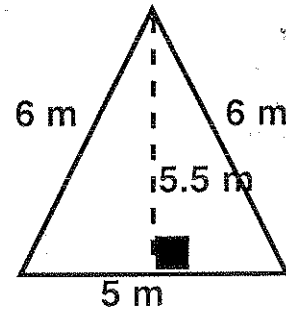
$P = 8 \text{ m}$

$A = 3 \text{ m}^2$



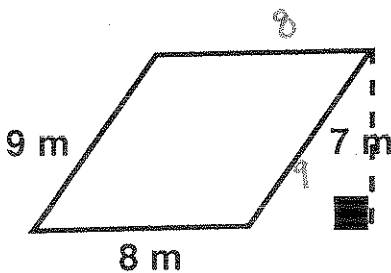
$P = 48 \text{ in}$

$A = 144 \text{ in}^2$



$P = 17 \text{ m}$

$A = 13.75 \text{ m}^2$
 $\frac{1}{2} \cdot 5 \cdot 5.5$



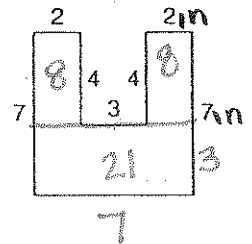
$P = 34 \text{ m} \quad (9+8+9+8)$

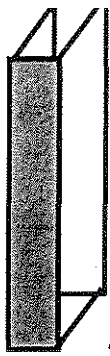
$A = 56 \text{ m}^2$

b · h
8 · 7

$P = 36 \text{ in}$

$A = 37 \text{ in}^2$





12 in

$$SA = 2(1 \cdot 4) + 2(4 \cdot 12) +$$

$$2(12 \cdot 1)$$

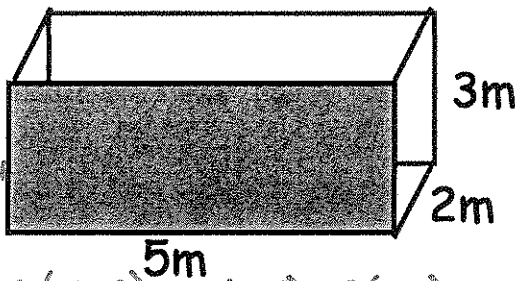
$$= 8 + 96 + 24$$

$$= 128$$

1 in

$$SA = \underline{128 \text{ in}^2}$$

$$V = \underline{48 \text{ in}^3} \quad v = 1 \cdot 4 \cdot 12$$



5 m

3 m

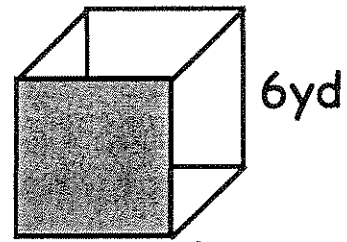
2 m

$$SA = 2(5 \cdot 2) + 2(2 \cdot 3) + 2(3 \cdot 5)$$

$$20 + 12 + 30$$

$$SA = \underline{62 \text{ m}^2}$$

$$V = \underline{30 \text{ m}^3} \quad v = 5 \cdot 2 \cdot 3$$



6 yd

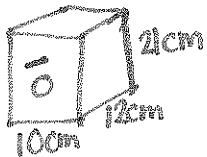
$$SA = 6(6 \cdot 6)$$

$$V = 6 \cdot 6 \cdot 6$$

$$SA = \underline{216 \text{ yd}^2}$$

$$V = \underline{216 \text{ yd}^3}$$

Ainsley built a birdhouse shaped like a rectangular prism. The birdhouse was 10 cm wide, 12 cm long, and 21 cm high. How much birdseed can the birdhouse hold? If she is building the birdhouse out of wood, how much wood should she buy? If wood costs \$0.05 per cm², how much will it cost Ainsley to buy the wood?



$$V = 10 \cdot 21 \cdot 12$$

$$= 2520 \text{ cm}^3$$

$$SA = 2(10 \cdot 12) + 2(12 \cdot 21) + 2(10 \cdot 21)$$

$$= 240 + 504 + 420$$

$$= 1164 \text{ cm}^2$$

$$\text{Cost: } 1164 \cdot .05$$

$$= \$58.20$$

Ainsley's birdhouse can hold 2520 cm³ of birdseed. She will need 1164 cm² of wood to build it, which will cost her \$58.20.

Mr. Waincott is building a rectangular garden in the backyard. He bought 24 ft of fencing to enclose the garden. What are some possible dimensions that Mr. Waincott could use to enclose the garden? Of those dimensions, which one would give him the biggest space to plant vegetables?

If perimeter = 24 then $l + w = 12$, so:

$$P = 24$$

Possible dimensions:

$$1 \times 11 \rightarrow A = 11$$

$$2 \times 10 \rightarrow A = 20$$

$$3 \times 9 \rightarrow A = 27$$

$$4 \times 8 \rightarrow A = 32$$

$$5 \times 7 \rightarrow A = 35$$

$$6 \times 6 \rightarrow A = 36$$

Of all of the possible dimensions, the 6x6 garden would give Mr. Waincott the most space.