

# Monday, May 16 $C^2 = a^2 + b^2$

## Grade 8

### Assessment review

Use pythagorean theorem and find the length of the missing side

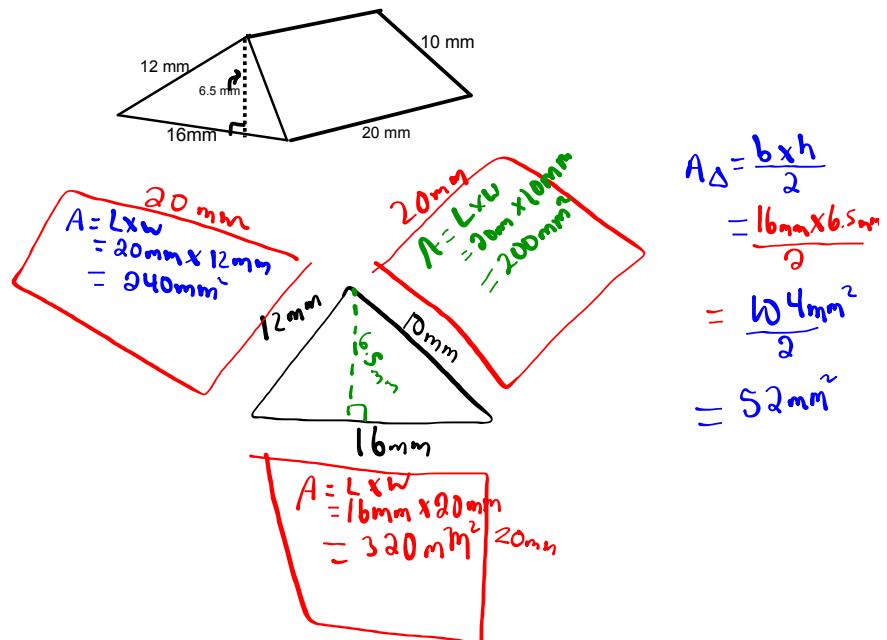
$$\begin{array}{l}
 \text{a) } \begin{array}{c} \text{C} \\ ? \\ 4.0 \text{ cm} \\ \text{a} \\ \text{b} \end{array} \\
 \begin{aligned}
 C^2 &= a^2 + b^2 \\
 &= (4)^2 + (2.5)^2 \\
 &= 16 \text{ cm}^2 + 6.25 \text{ cm}^2 \\
 C^2 &= 22.25 \text{ cm}^2 \\
 C &= \sqrt{22.25 \text{ cm}^2} \\
 C &= 4.71 \text{ cm}
 \end{aligned}
 \end{array}
 \quad
 \begin{array}{l}
 \text{b) } \begin{array}{c} \text{C} \\ 15.0 \text{ cm} \\ ? \\ \text{b} \\ \text{a} \\ 8 \text{ cm} \end{array} \\
 \begin{aligned}
 b^2 &= c^2 - a^2 \\
 &= 15^2 - 8^2 \\
 b^2 &= 225 - 64 \\
 b^2 &= 161 \text{ cm}^2 \\
 b &= \sqrt{161 \text{ cm}^2} \\
 b &= 12.7 \text{ cm}
 \end{aligned}
 \end{array}$$

2) Which is a better buy?

$$\begin{array}{l}
 6 \text{ items for \$12.50} \quad \text{or} \quad 20 \text{ items for \$42.40} \\
 \frac{\div 6}{1 \text{ item for \$2.08}} \quad \left\{ \frac{\div 20}{1 \text{ item for \$2.12}} \right. \\
 \text{Better Buy}
 \end{array}$$

3) Review from Friday

Find the total surface area of the following triangular prism.  
Sketch the faces. Show all work.



$$\begin{aligned}
 S.A_{\text{Total}} &= 2\Delta + \text{Rec} + \text{Rect} + \text{Rec} \\
 &= 2(52 \text{ mm}^2) + 320 \text{ mm}^2 + 240 \text{ mm}^2 + 200 \text{ mm}^2 \\
 &= 104 \text{ mm}^2 + 320 \text{ mm}^2 + 240 \text{ mm}^2 + 200 \text{ mm}^2 \\
 &= 864 \text{ mm}^2
 \end{aligned}$$

# HW Solutions

## Warm Up

May 13, 2016

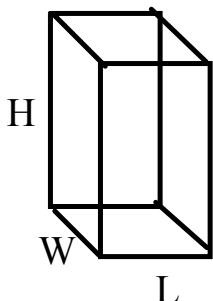


**Whenever 3 dimensions are given, they are in the order:  
length, width and height.**

### Assessment Review

- 1) An office is in the shape of a right rectangular prism with length 60 m width 40 m and height 200 m. The top quarter of each vertical face of the building is to be covered with a large banner advertising a major sporting event. What is the total surface area to be covered with banners?

Always ask yourself "Do you use the top/bottom"?



Side/Side

$$A=L \times W$$

$$= 40 \text{ m} \times 200 \text{ m}$$

$$= 8000 \text{ m}^2$$

Front/back

$$A=L \times W$$

$$= 60 \text{ m} \times 200 \text{ m}$$

$$= 12\,000 \text{ m}^2$$

$$\text{Total Wall SA} = 2(8\,000 \text{ m}^2 + 12\,000 \text{ m}^2)$$

$$= 2(20\,000 \text{ m}^2)$$

$$= 40\,000 \text{ m}^2$$

top quarter means to divide by 4

10 000 m<sup>2</sup> to be covered by banner

Total S.A = 2(Triangle) + Rec +Rec +Rec

thursday's

Extra Practice 4 – Master 4.39

Lesson 4.4

1.      a)       $408 \text{ cm}^2$   
             b)       $672 \text{ cm}^2$   
             c)       $97.5 \text{ cm}^2$
2.       $104 \text{ cm}^2$
3.       $441.4 \text{ cm}^2$
4.      Right triangle  
             a)       $840 \text{ mm}^2$   
             b)       $1740 \text{ mm}^2$

Friday

page 1 (done already)

Page 2	page 3)
#2) $133.2 \text{ m}^2$	top question $156 \text{ m}^2$
#3) $277.2 \text{ in}^2$	#3) $150 \text{ m}^2$
#4) $267 \text{ in}^2$	#4) $93 \text{ cm}^2$
	#6) $94 \text{ in}^2$
	#7) same as #4
	#8) $162 \text{ m}^2$
	#9) $130 \text{ ft}^2$
	#10) $198 \text{ cm}^2$
	#11) $76 \text{ yd}^2$
	#12) $17.6 \text{ ft}^2$
	#13) $136 \text{ m}^2$
	#14) $53.1 \text{ mm}^2$

# Class/Homework

we can do booklet



## Attachments

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[Review of Surface area of 2D Shape Grade 8 Unit 4 PDF.pdf](#)

[Surface Area of Triangular Prisms.notebook](#)