No Sound!

Grade 12 Essential

Inventory

clear out the cobwebs

MrF

What you should know(?) starting Grade 12 Essential

*A very quick highlight of a **few** selected Grade 10 and 11 ideas with which students should be **familiar** with when starting Grade 12 Essential*

" Pre-requisites "

*If few of these selected examples look familiar or manageable, then the student will have some **additional challenge** in Grade 12 Essential*

No Sound

and teacher

Run this silent movie

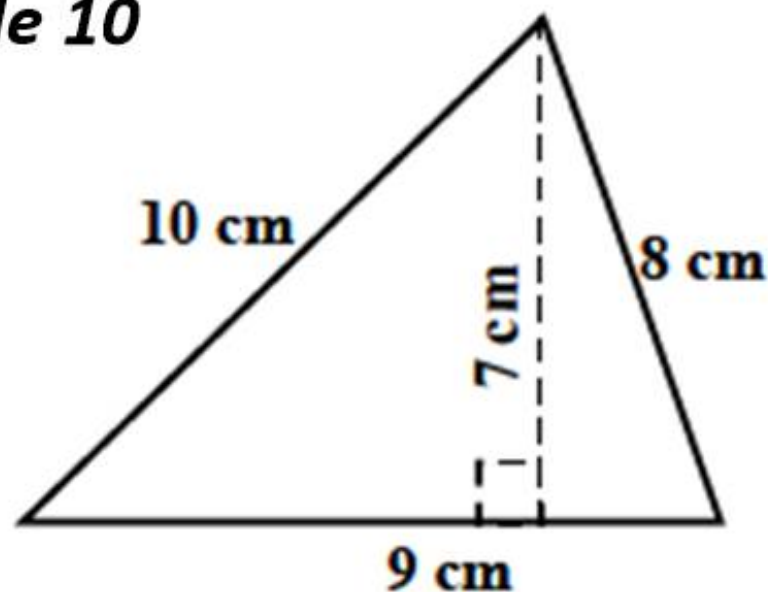there is a ~ ten second interval between slides

Pause it if you need

Solutions available from teacher!

1. The area of the triangle is:

    a. 27 cm

    b. 34 cm²

    c. 31.5 cm²

    d. 63 cm²

$A_D = \frac{1}{2} \cdot b \cdot h$

10 cm 8 cm 7 cm 9 cm

2. If Jason goes to work at 08:45 and leaves work at 16:15 and has an unpaid 30 minute lunch break; for what duration of time does he get paid?

    a. 7 hours

    b. 5 hours 45 minutes

    c. 6 hours 15 minutes

    d. a full eight hour shift

$1m = 3.28ft$

3. 28 feet is the equivalent of this many metres:

   a. 85 cm   **b.** 8.53 m   **c.** 91.84 m   **d.** 336 in
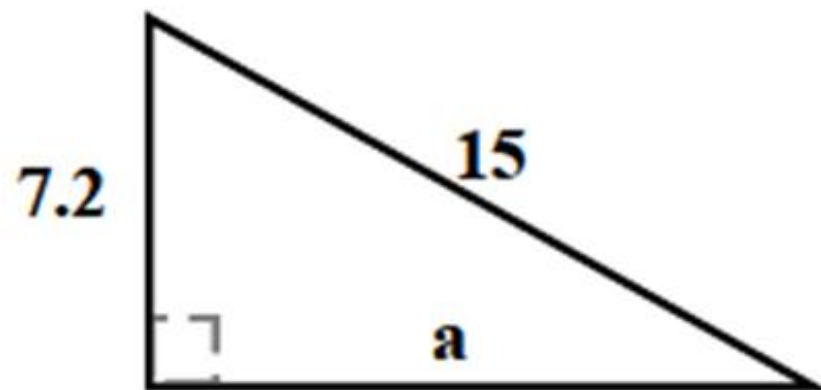
5. The length of side **a** is:

   a. 16.7 units

   b. 7.8 units

   c. 173 units

   d. 13.16 units

Pythagoras.

$$c^2 = a^2 + b^2$$

7.2   15   a

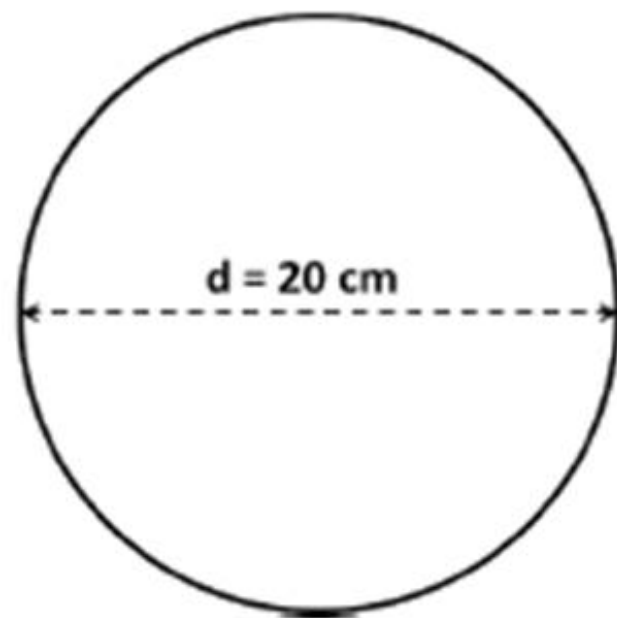**Diagram not to scale**

11. The area of this circle is approximately:

a.   10 cm

b.   314 cm²

c.   62.83 cm

d.   1257 cm²

d = 20 cm

$A = \pi r^2 =$

18. The sum of **two** numbers is **17** their **difference** is **7**. Find the two numbers.

    a.   (9.5, 4.5)   b.   (9, 8)   c.   (14, 3)   d.   (12, 5)

2.   Evan gets paid for the following hours this week. He gets an hourly wage of **$16.75**. **Overtime** pay is calculated after **eight hours in a day**. His overtime pay rate is calculated as **time and a half**. Calculate his **gross** weekly pay.

Weekday	M	T	W	Th	F	Sa	Su
Hours	4	8.5	9	10	10	6.5	0

Grade 10

$1,000g = 1kg$ $1 mile = 1.6 km$

$1 foot = 12 inches$

5. Convert the following measurements as indicated:

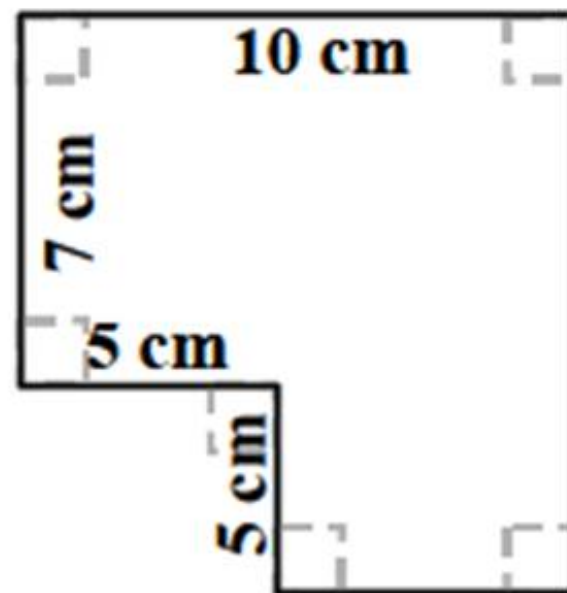|	
a. 1.64 kg = _____ g	b. 1,620 miles = _____ km
c. 21 days = _____ mins	d. 5 ft 9 in = _____ in

8. Determine the **Perimeter** *and* the **Area** of the following figures:

a. Parallelogram
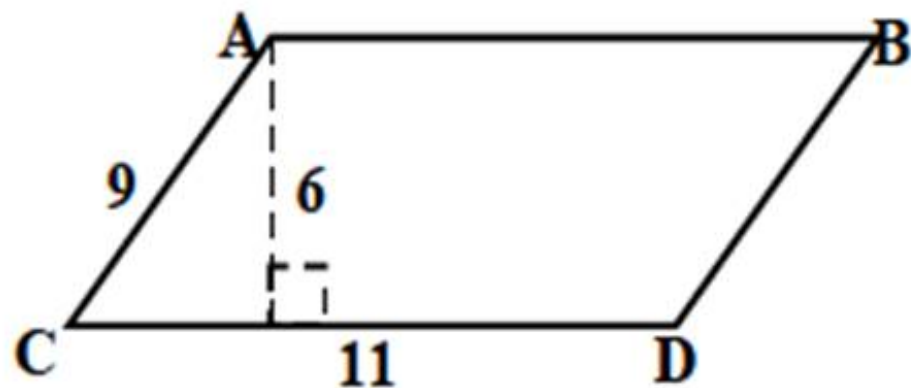
b. Irregular rectilinear figure

a.

A, B, C, D with measurements: 9, 6, 11

P = _____ A = _____

b.

10 cm, 7 cm, 5 cm, 5 cm

P = _____
A = _____

14. Your job is to buy some pop for a community feast. Determine the unit price, in $ per litre, of each of these options:
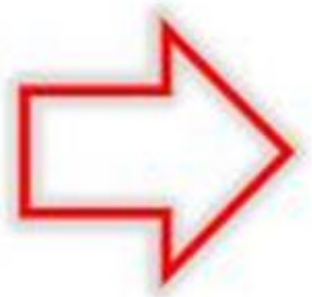
a. the **2L** size bottles of pop **on sale** for $2.89

$$\$2.89/2L$$
$$= \$1.45/1L$$

b. the six packs of 355 ml cans for $2.49 ?

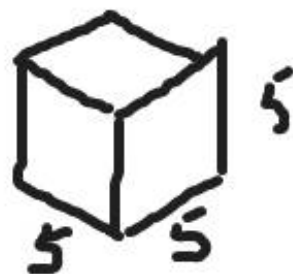c. the flats of 24 - 355 ml cans for $10.95 ?

Now some Grade 11 Stuff

The **surface area of a cube** with edge length 5 cm is:

a.   15 cm²   b.   150 cm²   c.   50 cm³   d.   10 ml

4.   What is the value of a $2,500 investment that earns compound interest monthly if it earns 7% APR for 10 years? $A = P\left(1 + \frac{r}{s}\right)^{h \cdot s}$

a. $502.42   b. $4,918   c. $5,024   d. $1,750

Grade 11

13. The slope of a line, often labeled '*m*', is calculated using the formula:

    a. $m = \frac{5}{9}(°F - 32)$ b. $m = tan^{-1}(rise)$

    c. $m = \dfrac{rise}{run\ right}$ d. $m = cos^{-1}\left(\dfrac{a^2 + b^2 - m^2}{2ab}\right)$
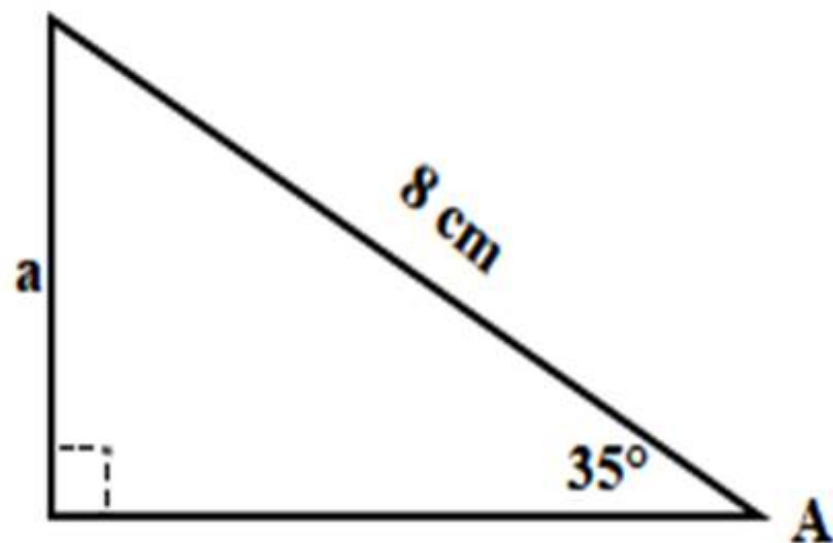
14. The length of side **a** is:

    a.   4.59 cm   **b.**   13.95 cm

   **c.**   55°   **d.**   280 cm

Grade 11

1. Kyle borrows $8,000 from a lending institution at an Annual Percentage Rate (APR) of **30%**. [A 'predatory' rate as they call it in the news]. The term of his loan is 5 years and he makes **monthly** payments. (use the table method; loan tables provided in class or on website)

    a. Calculate the amount of each monthly payment.
    b. Calculate the amount that Kyle pays back total.
    c. Calculate the total interest that he paid for the loan.

Grade 11

6. Calculate the **Surface Area** and the **Volume** of this entire cylindrical object.

SA:_____

Volume: _____

3 units

5 units

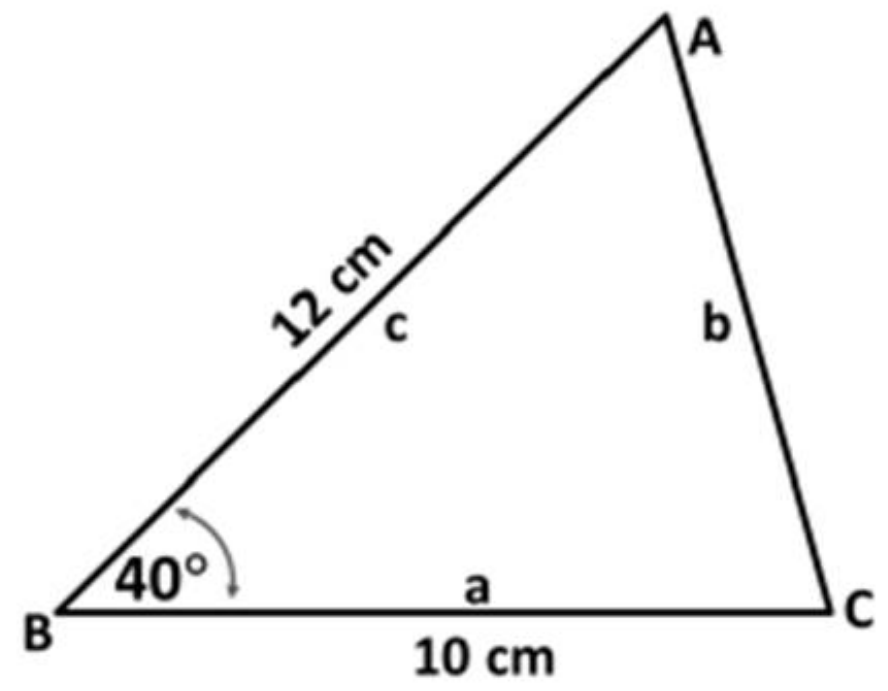$$SA = 2\pi r^2 + 2\pi r h$$
$$V = \pi r^2 \cdot h$$

Grade 11
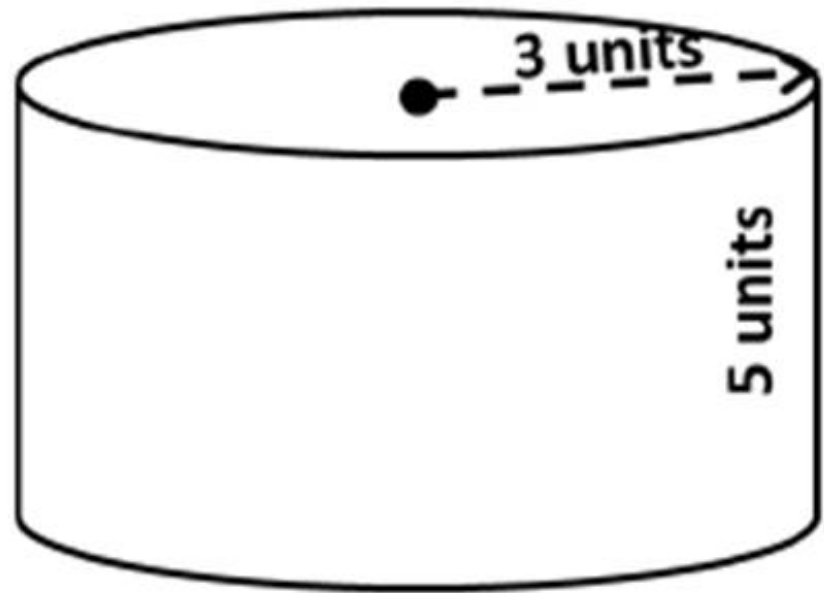
10. Calculate:

4

a. the measure of length **b**

length **b** = _____

b. The measure of angle **A** now that you have all 3 sides

∠**A**= _____
(nearest whole °)

$$b^2 = a^2 + c^2 - 2ac\cos\angle B$$

$$\angle A = \cos^{-1}\left(\frac{b^2 + c^2 - a^2}{2 \cdot b \cdot c}\right)$$
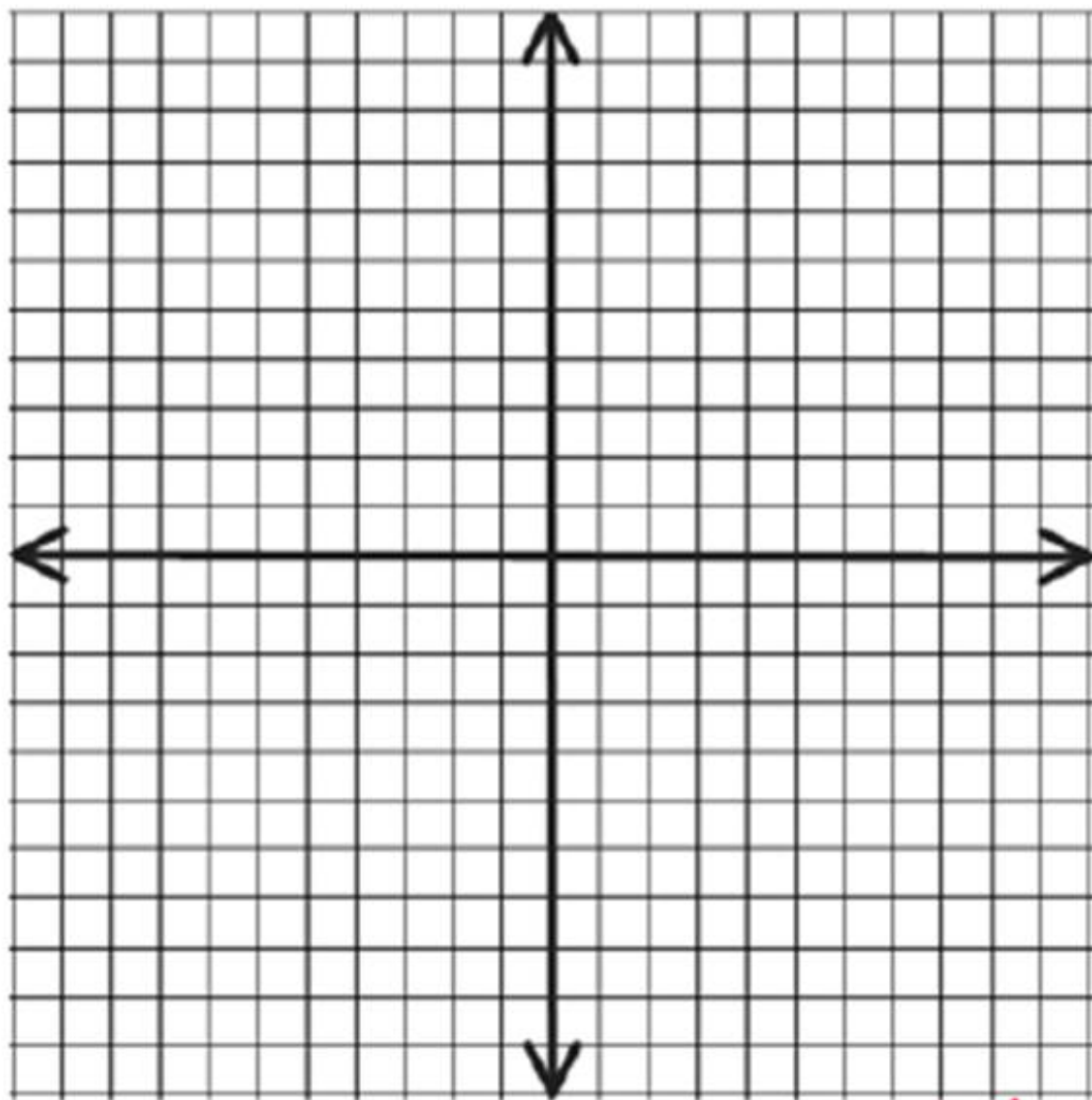
Grade 11

11. Using either the t-table method [make your own] or the slope and intercept method **Manually Graph** and label the two lines given by:

A. $y = 3x - 6$

4

B. $y = -\dfrac{2}{5}x + 8$

Grade 11

That is a quick snapshot of many of the Grade 10 and 11 outcomes, many of which you should hopefully be loosely (?) familiar with.

All set for Grade 12!!!

Ask teacher for solutions!