

Name: KEYLearning Goals:

1. I can find perfect squares and square roots using grids and numbers (/2)
2. I can estimate the square root of numbers that are not perfect squares (/2)
3. I can demonstrate an understanding of percents greater than 0% (/2)
4. I can demonstrate an understanding of ratios and rates (/2)
5. I can multiply and divide positive fractions and mixed numbers (/4)
6. I can multiply and divide positive and negative integers using both tiles and numbers (/2)
7. I can graph and analyse two variable linear relations (/2)
8. I can solve for X both pictorially using algebra tiles (or balances) as well as numerically (/4)
9. I can use the Pythagorean Theorem to solve right triangle problems (/2)
10. I can draw and construct nets for 3D objects (/2)
11. I can determine surface area for right rectangular prisms, right triangular prisms, and right cylinders (/2)
12. I can determine volume for right prisms and right cylinders (/2)
13. I can draw the top, front, and side views of 3D objects of right prisms (/2)
14. I can explain the properties of tessellations (/2)
15. I can critique ways in which data is graphically and statistically presented (/2)
16. I can solve probability of independent events (/2)

From the above scores, I need to focus on improving my skills in the below learning goals:

1. _____
2. _____
3. _____

Part 1: I can find perfect squares and square roots using grids and numbers

Solve for 9^2	Solve for 6^2 :
$9 \times 9 = 81$	$6 \times 6 = 36$

Part 2: I can estimate the square root of numbers that are not perfect squares

Estimate for $\sqrt{41}$	Estimate for $\sqrt{19}$
$\sqrt{49} = 7$ $\sqrt{36} = 6$ ≈ 6.4	$\sqrt{16} = 4$ $\sqrt{25} = 5$ ≈ 4.3

Part 3: I can demonstrate an understanding of percents greater than 0%

$40 \times 120 = 4800$

<p>Write 22% as a fraction in lowest terms</p> $\frac{22}{100} = \frac{11}{50}$	<p>What is 40% of 120?</p> $\frac{40}{120} = \frac{4}{12} = \frac{1}{3} = 0.\overline{33}$ <p>or</p> $12 \overline{) 4.00}$ $\underline{36}$ 40 $\underline{36}$ 4
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Part 4: I can demonstrate an understanding of ratios and rates

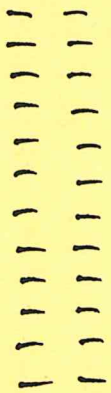
<p>Reduce the following ratio 4 dogs for every 6 cats:</p> $4:6 = 2:3$	<p>IGA is selling 4 oranges for \$3. What is the unit price per orange?</p> $\frac{\\$3}{4} = \frac{x}{1}$ <p>or</p> $\frac{3}{4} = \frac{x}{1}$ $\frac{3}{4} = x$ $0.75 = x$
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Part 5: I can multiply and divide positive fractions and mixed numbers

<p>$\left(\frac{1}{2}\right)\left(1\frac{1}{4}\right)$</p> $\frac{1}{2} \times \frac{5}{4} = \frac{5}{8}$	<p>$\left(2\frac{1}{2}\right) \div \left(2\frac{3}{4}\right)$</p> $\frac{5}{2} \times \frac{4}{11} = \frac{10}{11}$
<p>$\left(2\frac{1}{3}\right)\left(1\frac{1}{3}\right)$</p> $\frac{7}{3} \times \frac{4}{3} = \frac{28}{9} = 3\frac{1}{9}$	<p>$\left(1\frac{2}{3}\right) \div \left(\frac{3}{5}\right)$</p> $\frac{5}{3} \times \frac{5}{3} = \frac{25}{9} = 2\frac{7}{9}$

Part 6: I can multiply and divide positive and negative integers using both tiles and numbers

Show using tiles: $(-2)(-12) = +24$



$\rightarrow -2$ (opposite sign)



Solve: $3(2-7) + 4(18-10)$

~~$(6-21)$~~

$3(-5) + 4(8)$

$-15 + 32$

(17)

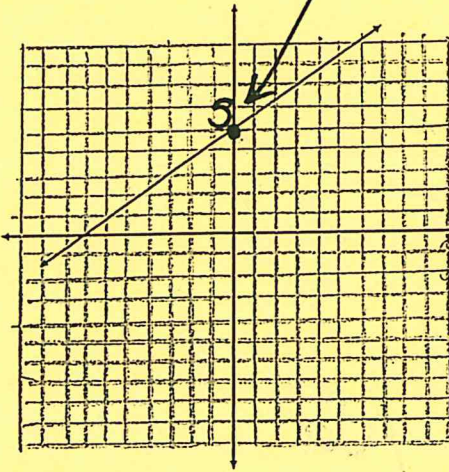
** can use distributive property as well*

B
E
D
M
A
S

Part 7: I can graph and analyse two variable linear relations

What is the equation for the below graph? *

$y = mx + b$



x	y
0	5
1	5.5
2	6
3	6.5
-1	4.5
-3	3.5
4	7

$y = \textcircled{+} \frac{1}{2}x + 5$

Fill in the missing parts of the below table of values: ✓

$y = 2x + 2$

X	Y
-3	-4
1	4
2	6

Part 8: I can solve for X both pictorially using algebra tiles (or balances) as well as numerically

Using algebra tiles or balances, show how you would solve for X: $2x - 1 = 19$

~~$x - 1$~~
 $2x = 20$
 $x = 10$

Solve: $2(8x + 1) = 3$

$16x + 2 = 3$
 ~~$16x$~~
 $16x = 1$
 $x = \frac{1}{16}$

Using algebra tiles or balances, show how you would solve for X: $4x - 3 = 4$

$4x - 3 = 4$

$4x = 7$

$x = \frac{7}{4} = 1\frac{3}{4}$

Solve: $2x - 4 = 5x + 3$

$2x - 4 = 5x + 3$

$-2x \quad -2x$

$-4 = 3x + 3$

$-3 \quad -3$

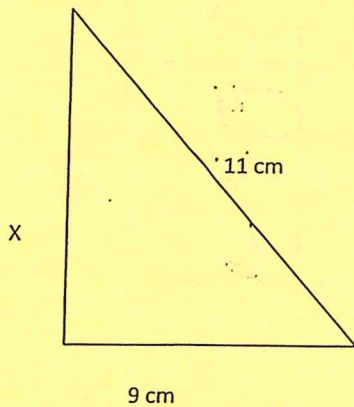
$-7 = 3x$

$-\frac{7}{3} = x$

$-\frac{7}{3} = x$

Part 9: I can use the Pythagorean Theorem to solve right triangle problems

Solve for the unknown side:



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

$9^2 + x^2 = 11^2$

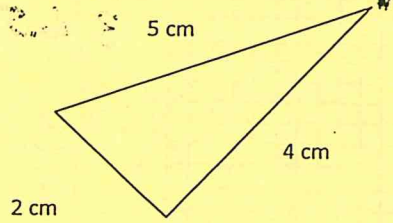
$81 + x^2 = 121$

$b^2 = 121 - 81$

$b^2 = 40$

$b = \sqrt{40}$

Is this a right triangle? Why or why not?



~~Yes~~ No

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

$4^2 + 2^2 = 5^2$

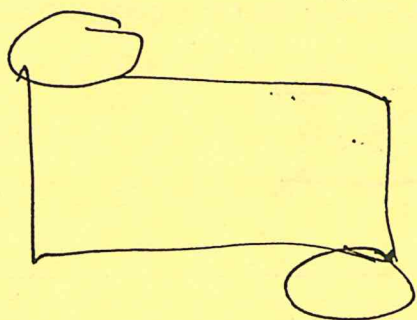
$16 + 4 = 25$

$20 \neq 25$

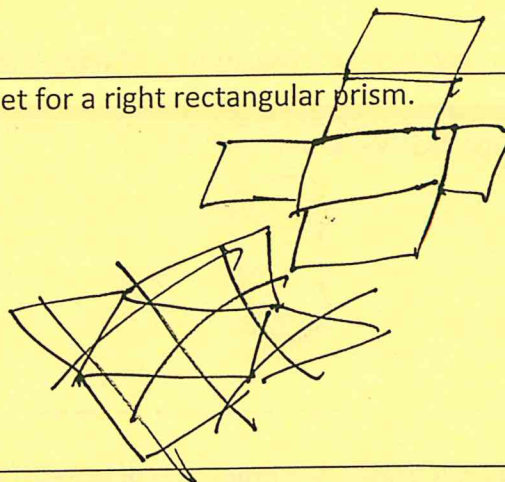
Part 10: I can draw and construct nets for 3D objects



Draw a net diagram for a cylinder



Draw a net for a right rectangular prism.



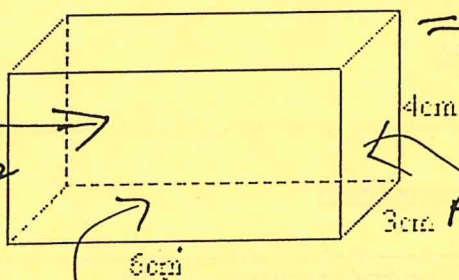
Part 11: I can determine surface area for right rectangular prisms, right triangular prisms, and right cylinders



What is the surface area of the below shape?

$$48\text{cm}^2 + 36\text{cm}^2 + 24\text{cm}^2$$

$$A = l \times w \\ = 6 \times 4 \\ = 24\text{cm}^2 \\ \times 2 \\ = 48\text{cm}^2$$



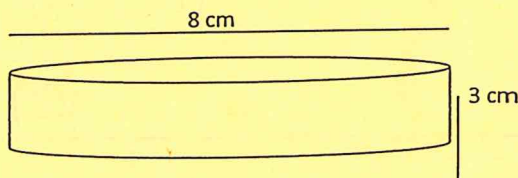
$$A = l \times w \\ = 6 \times 3 \\ = 18\text{cm}^2$$

$$\times 2 = 36\text{cm}^2$$

$$= 108\text{cm}^2$$

$$A = l \times w \\ = 4 \times 3 \\ = 12\text{cm}^2 \\ \times 2 \\ = 24\text{cm}^2$$

What is the surface area of the below shape?



$$V = \pi r^2 h$$

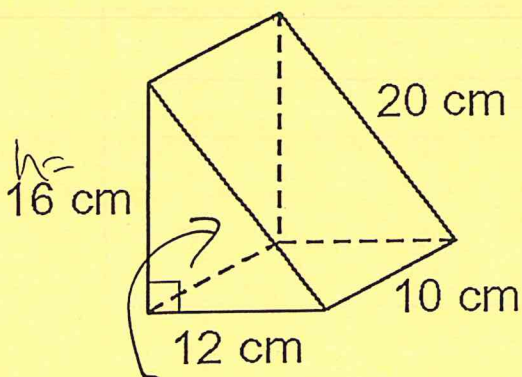
$$= 3.14 \times (4)^2 \times 3 \\ = 3.14 \times 16 \times 3 \\ = 150.72\text{cm}^2$$

$$SA = 2\pi r^2 + 10 \\ = 2 \times 3.14 \times 4^2 \\ = 3.14 \times 8 \times 3 \\ = 100.48 + 75 \\ = 175.84\text{cm}^2$$

Part 12: I can determine volume for right prisms and right cylinders

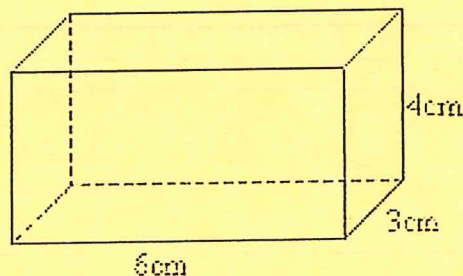


What is the volume of the below shape?



$$V = \frac{b \times h}{2} \times l \\ = \frac{12 \times 16}{2} \times 10 \\ = 960\text{cm}^3$$

What is the volume of the below shape?



$$\frac{36 \times 4}{72}$$

$$V = l \times w \times h \\ = 6 \times 3 \times 4 \\ = 72\text{cm}^3$$

✓ from science

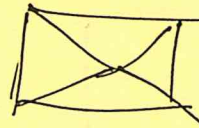
Part 13: I can draw the top, front, and side views of 3D objects of right prisms



Sketch the side view of a cylinder:



Sketch the top view of a right triangular prism:



Part 14: I can explain the properties of tessellations



Define a tessellation:

repeats of congruent shapes

ex) mosaic
mosaic

Part 15: I can critique ways in which data is graphically and statistically presented

You have collected data on the length of your forearm (cm) and the height of your foot (cm).

What is the best way to show this in graph format? Why?

1. pie chart
2. line graph
3. bar graph
4. data table

Because:

Compares two items.

Part 16: I can solve probability of independent events

You have a bag of 10 bingo chips. 4 are pink and 6 are blue. If you remove four bingo chips in a row, what is the probability that they are all pink? *

$$\frac{4}{10} \times \frac{4}{10} \times \frac{4}{10} \times \frac{4}{10} = \frac{256}{10000} = \frac{64}{2500} = \frac{16}{625}$$

$$\begin{array}{r} 36 \\ \times 16 \\ \hline 216 \\ 256 \\ \hline 256 \end{array}$$

Self Assessment of Math Skills:

Using the list of learning goals from the front page, I think that this year I have been MOST SUCCESSFUL in the below areas:

1. _____
2. _____

Using the list of learning goals from the front page, I think that this year I STILL STRUGGLE in the below areas:

3. _____
4. _____

I estimate that I spent _____ hours preparing for this final exam

I am going to prepare for this test by: (please check)

- doing the textbook practice questions
- reviewing worksheets and notes from throughout the year
- reviewing prior tests
- making cue cards of questions and examples
- studying with a friend
- attending lunch time tutorials
- other : _____