

NAME: _____

CLASS: _____

JUNE FINAL EXAM review sheet

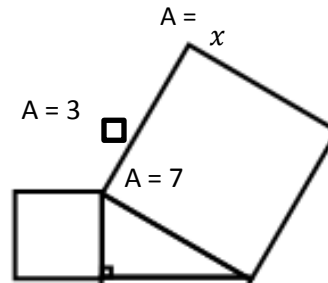
Name: _____

Grade 8 MATH

Clas: _____

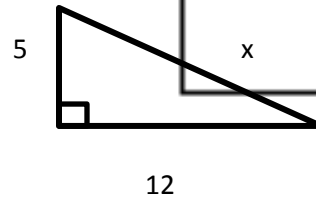
Unit 1: Powers, Roots and Pythagorean Theorem1. What is the missing area, in mm^2 ?

- A) 4
- B) 7.6
- C) 10
- D) 58



2. What is the missing side?

- A) 7
- B) 13
- C) 17
- D) 169

3. Simplify: $\sqrt{17^2}$.

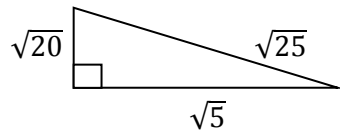
- A) 17
- B) 99
- C) 34
- D) 49

4. Given a square with area 169 cm^2 , what is its side length?

- A) 13 cm
- B) 13 cm^2
- C) 169 cm
- D) 169 cm^2

5. Given a square with side length 4 mm, what is the perimeter of the square?
- A) 12 mm
 - B) 12 mm^2
 - C) 16 mm
 - D) 16 mm^2
6. If $\sqrt{49} = 7$, what is its inverse operation?
- A) $7^2 = 14$
 - B) $49^2 = 7$
 - C) $7^2 = 49$
 - D) $49^2 = 98$
7. The $\sqrt{21}$ lies between which whole numbers?
- A) 2 and 3
 - B) 4 and 5
 - C) 16 and 25
 - D) 20 and 22
8. If a 3-4-5 triangle is a Pythagorean triple, what is another Pythagorean Triple?
- A) 5-6-7
 - B) 12-16-20
 - C) 60-80-150
 - D) 60-90-100

9. Given the following diagram, which statement is true:



- A) This is not a right triangle.
- B) This is a right triangle.
- C) This is a perfect square.
- D) This is a rectangle.
10. What is a good estimate for the square root of 53 (to the nearest tenth) ?
- A) 7.1
- B) 7.3
- C) 7.6
- D) 7.9
11. Evaluate: $\sqrt{15 \times 15}$.
- A) 1
- B) $\sqrt{15}$
- C) 15
- D) 225
12. Put the following in ascending order. Show why your arranged them this way.
- A) 1^2 , $\sqrt{36}$, 7 , $\sqrt{9^2}$, $\sqrt{100}$, 5^2
- B) 1^2 , 7 , $\sqrt{9^2}$, $\sqrt{36}$, $\sqrt{100}$, 5^2
- C) 1^2 , $\sqrt{36}$, 7 , $\sqrt{100}$, 5^2 , $\sqrt{9^2}$
- D) 1^2 , $\sqrt{36}$, 7 , $\sqrt{9^2}$, 5^2 , $\sqrt{100}$

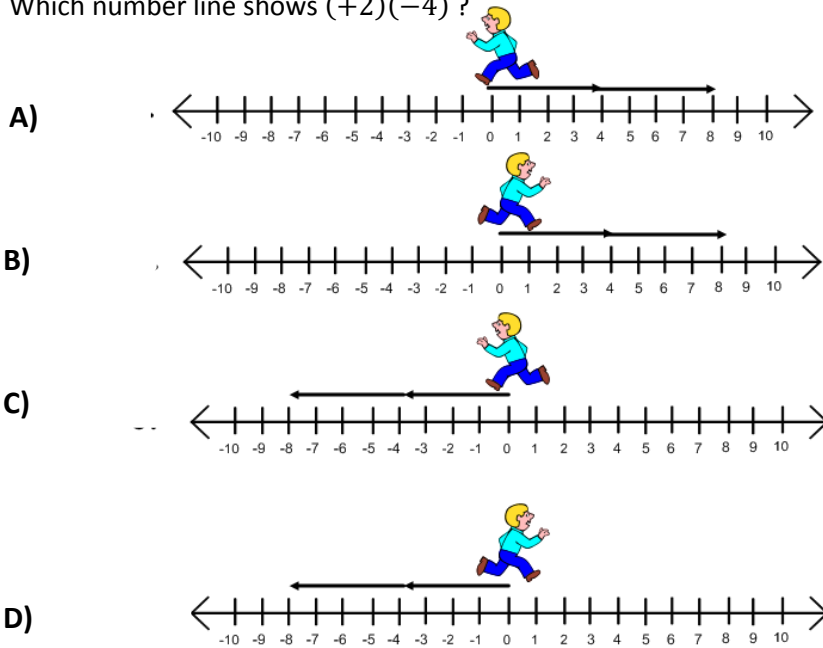
Unit 2: Integers**PART A: Selected Responses (24)****NO CALCULATOR PERMITTED.**

1. What is the addition statement $(-5) + (-5) + (-5) + (-5) + (-5)$ written as the multiplication statement?
 - A) $(-5) \times (-5)$
 - B) $(-5) \times (+5)$
 - C) $(+5) \times (-5)$
 - D) $(+5) \times (+5)$
2. When you multiply an odd number of negative integers together, what sign does the answer have?
 - A) negative integer
 - B) opposite
 - C) positive integer
 - D) zero
3. Evaluate: $(-5) \times (-10) \times (-3)$.
 - A) -150
 - B) -18
 - C) $+18$
 - D) $+150$
4. Evaluate: $(-72) \div (-8) \div (-3)$
 - A) -6
 - B) -3
 - C) $+3$
 - D) $+6$

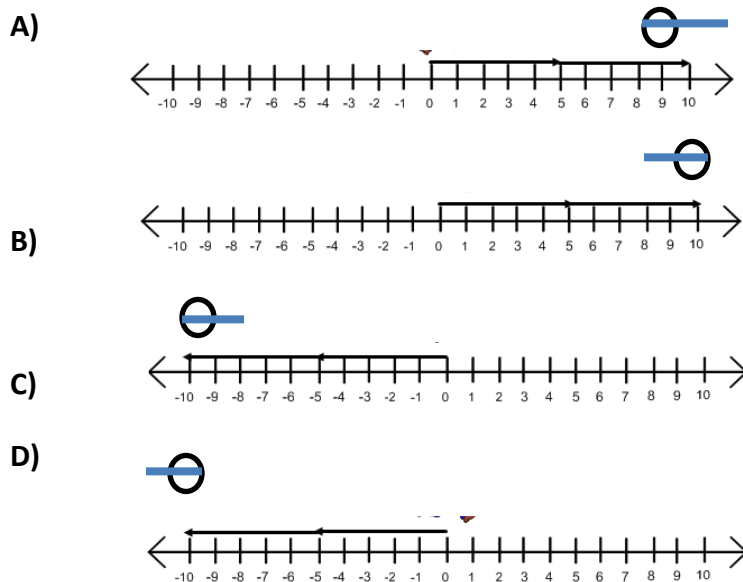
5. The product of two integers is 24.
 The sum of the same integers is -10 .
 What are the integers?

- A) $(+6)$ and $(+4)$
- B) (-6) and (-4)
- C) (-6) and $(+4)$
- D) $(+6)$ and (-4)

6. Which number line shows $(+2)(-4)$?

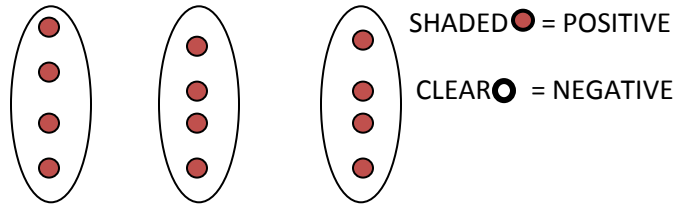


7. Which diagram which represents $(-10) \div (5)$?



8. According to BEDMAS, for $(-12) - (-2)^2$ which operation which must be performed first?
- A) Addition
 - B) Division
 - C) Exponents
 - D) Subtraction
9. Given: $(-20)[(+2) + (+5)] = (-20)(+2) + (-20)(+5)$. What is the property?
- A) Commutative Property
 - B) Distributive Property
 - C) Multiplicative Identity
 - D) Zero Property
10. Simplify: **$5 + (-3) \times (+4)$** .
- A) -60
 - B) -7
 - C) +7
 - D) +60
11. According to BEDMAS, for $10 - [(-5) + (-6)]$ which operation which must be performed first?
- A) Brackets
 - B) Division
 - C) Multiplication
 - D) Subtraction

12. What is the multiplication statement modelled by the following?



- A) $(-3)(+4)$
B) $(-3)(-4)$
C) $(+3)(+4)$
D) $(+3)(-4)$
13. $(-7)(+5) = (+5)(-7)$ shows which property?
A) Commutative Property
B) Distributive Property
C) Multiplicative identity
D) Zero Property
14. When just involving division, if the signs are the same, what is the sign of the quotient?
A) negative
B) opposite
C) positive
D) zero
15. According to BEDMAS, for $(-2) - (+5) + (-3)$ which operation which must be performed first?
A) Addition
B) Division
C) Multiplication
D) subtraction

16. Evaluate: $9 \times (-6)$.

- A) -54
- B) -3
- C) +3
- D) +54

17. Simplify: $(-2)(+15)(-5)$.

- A) -150
- B) -8
- C) +8
- D) +150

18. According to BEDMAS, for $\frac{(-28)}{(+12)+(-5)}$ which operation which must be performed first?

- A) Addition
- B) Division
- C) Multiplication
- D) Subtraction

19. Solve: $(-8)-(-3)(+2)$.

- A) -10
- B) -2
- C) +2
- D) +10

PART B: Fill Ins. (11)

20. Given: $(-28) \div (+7) = (-4)$. Identify the:

- A) quotient _____
- B) dividend _____
- C) divisor _____

Unit 3: Fractions**REMEMBER: Put all final answers in simplest forms.**

1. What is the multiplication statement for $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6}$?

- A. $5 + \frac{1}{6}$
- B. $5 \times \frac{1}{6}$
- C. $6 + \frac{1}{5}$
- D. $6 \times \frac{1}{5}$

2. What is the improper fraction of $2\frac{4}{5}$?

- A. $\frac{5}{14}$
- B. $\frac{8}{5}$
- C. $\frac{14}{5}$
- D. $\frac{14}{2}$

3. What fraction is modelled by  ?

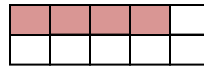
- A. $\frac{3}{7}$
- B. $\frac{7}{3}$
- C. $1\frac{2}{10}$
- D. $1\frac{2}{5}$

4. Evaluate: $\frac{3}{4} + \frac{1}{7}$.

- A. $\frac{4}{28}$
- B. $\frac{4}{11}$
- C. $\frac{25}{28}$
- D. $\frac{28}{25}$

5. What is the product of fractions shown here ?

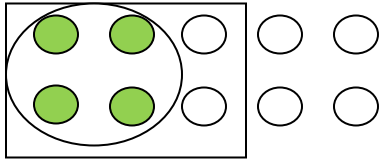
- A. $\frac{1}{2} \times \frac{4}{5}$
 B. $\frac{1}{4} \times \frac{2}{5}$
 C. $\frac{4}{5} \times \frac{6}{10}$
 D. $\frac{1}{2} \times \frac{4}{6}$



6. Evaluate: $\frac{3}{4} \times \frac{32}{12}$.

- A. $\frac{1}{2}$
 B. $\frac{2}{1}$
 C. $\frac{35}{16}$
 D. $\frac{32}{8}$

7. What is the multiplication statement for the counters below?



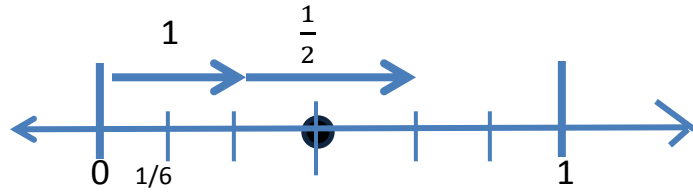
- A. $\frac{4}{6} \times \frac{4}{10}$
 B. $\frac{2}{3} \times \frac{6}{10}$
 C. $\frac{4}{4} \times \frac{6}{10}$
 D. $\frac{4}{10} \times \frac{4}{8}$

8. Simplify: $\frac{5}{9} \div \frac{15}{21}$.

- A. $\frac{75}{199}$
 B. $\frac{25}{63}$
 C. $\frac{7}{9}$
 D. $\frac{105}{135}$

9. What is the division statement?

- A. $\frac{1}{2} \div \frac{2}{3}$
- B. $\frac{1}{2} \div \frac{1}{6}$
- C. $\frac{1}{2} \div \frac{1}{3}$
- D. $\frac{1}{2} \div \frac{3}{2}$



10. Eugene had $\frac{2}{5}$ cup of apple juice. He added more juice so he had $\frac{9}{10}$ cup of

juice in his glass. What operation must be used to find how much Eugene added?

- A. addition
 - B. division
 - C. multiplication
 - D. subtraction
11. What is a good estimation for $\frac{12}{23} \times \frac{19}{21}$?

- A. 0
- B. $\frac{1}{2}$
- C. 1
- D. $\frac{3}{2}$

12. Which product is a good estimation for $\frac{33}{16} \div \frac{9}{19}$?

- A. $2 \div 1$
- B. $3 \div 1$
- C. $2 \div \frac{1}{2}$
- D. $3 \div \frac{1}{2}$

13. There are 30 students in the class. Three-fifths are girls. How many boys are in the class?

- A. 5
- B. 6
- C. 12
- D. 18

14. Jacqui has $\frac{4}{7}$ of a birthday cake. She wants to share it between her 5 friends.

How much pizza does each person get?

- A. $\frac{4}{35}$
 B. $\frac{3}{5}$
 C. $\frac{9}{7}$
 D. $\frac{20}{7}$
15. Which is a word problem using $\frac{2}{3} \times \frac{1}{4}$?
- A) You have $\frac{2}{3}$ of a pizza and eat $\frac{1}{4}$ of it. How much did you leave?
 B) You have $\frac{1}{4}$ of a pizza and eat $\frac{2}{3}$ of it. How much did you actually eat?
 C) You have $\frac{2}{3}$ of a pizza and share it with $\frac{1}{4}$ of your class. How much do you eat?
 D) You have $\frac{1}{4}$ of a pizza and share it with $\frac{2}{3}$ of your class. How much did you eat?

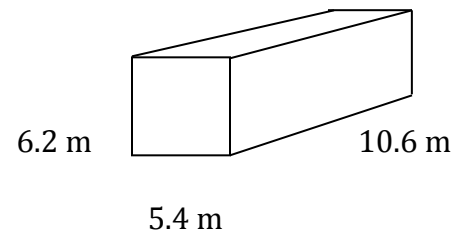
16. In the solution, the first mistake is in which line?

A) 1	$\frac{1}{3} + \frac{1}{2} \times \frac{3}{4}$	
B) 2	$= \frac{2}{6} + \frac{3}{6} \times \frac{3}{4}$Line 1
C) 3	$= \frac{5}{6} \times \frac{3}{4}$Line 2
D) 4	$= \frac{15}{24}$Line 3
	$= \frac{5}{8}$Line 4

Unit 4: 3-D Geometry

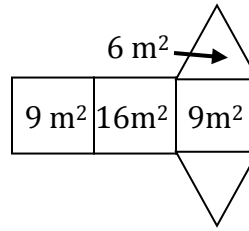
1. What is the volume of this right rectangular prism?

- A) 22.2 m^2
 B) 22.2 m^3
 C) 354.888 m^2
 D) 354.888 m^3



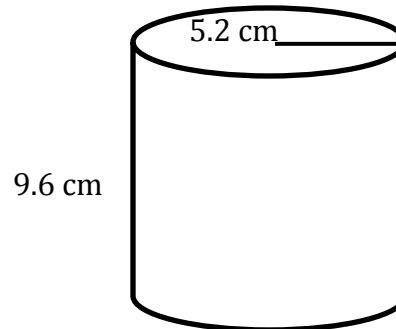
2. Given the net, find the area of the object?

- A) 6 m^2
- B) 12 m^2
- C) 34 m^2
- D) 46 m^2



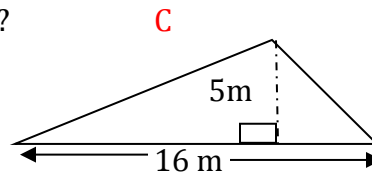
3. What is the volume, in m^3 , of this right cylinder (round to nearest tenth)?

- A) 84.9
- B) 169.8
- C) 483.3
- D) 815.1



4. What is the area, in m^2 , of this triangle?

- A) 21
- B) 37
- C) 40
- D) 80

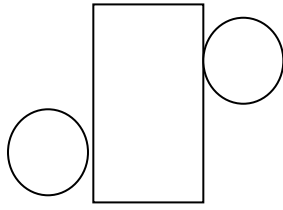


5. I have two bases, six rectangular sides and twelve vertices. What am I?

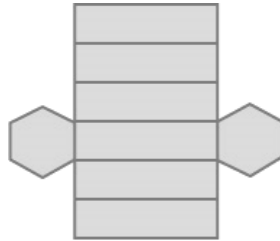
- A) heptagonal prism
- B) heptagonal pyramid
- C) hexagonal pyramid
- D) hexagonal prism

6. Which net forms a pentagonal prism?

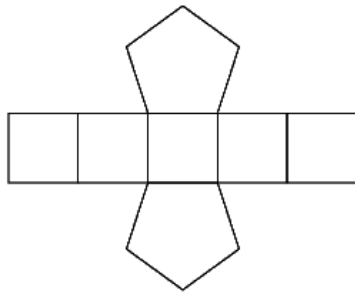
A)



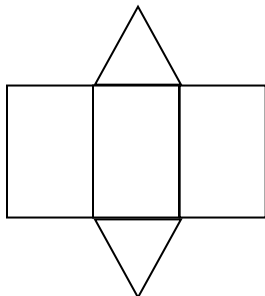
B)



C)

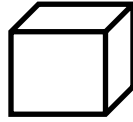


D)



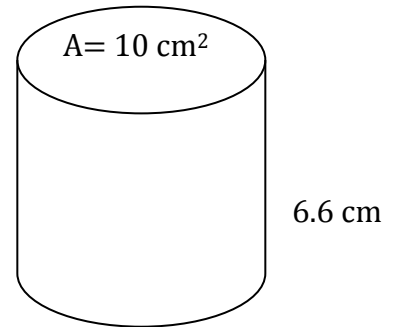
7. If the surface area of a cube is 600 m^2 , what is the length, in meters, of each side of the cube?

- A) 5
- B) 10
- C) 100
- D) 120



8. What is the volume, in cm^3 , of the cylinder?

- A) 16.6
- B) 26.6
- C) 66
- D) 660



Unit 5: Percent, Decimals, Rates and Ratios

1. The ratio of boys to girls in a class is 6 : 10. Choose the ratio of boys to students?

- A) 2:5
- B) 3:8
- C) 10:6
- D) 5:2

2. Mark earned \$81. He spent \$18 and saved the rest. What is the ratio of money saved to money spent?

- A) 2:9
- B) 7:2
- C) 7:9
- D) 9:2

3. What is the value of x ?

$$7:x = 28:40.$$

- A) 10
- B) 21
- C) 30
- D) 32

4. Ten years ago a leather jacket sold for \$60. Today it sells for \$150. What is the percent increase?

- A) 30%
- B) 40%
- C) 50%
- D) 60%

5. Laura types 400 words in 5 minutes. What is her unit rate, in wpm, for typing?

- A) 80
- B) 210
- C) 240
- D) 720

6. At the market, 5 cans of soup cost \$4.65. What is the unit cost for a can of soup?

- A) \$0.87
- B) \$0.89
- C) \$0.93
- D) \$0.97

7. A soccer player scored 36 goals in 50 games. About how many goals should the player score in 250 games, if she continues to score at the same rate?

- A) 100
- B) 108
- C) 126
- D) 180

8. 40% of what number is 60?

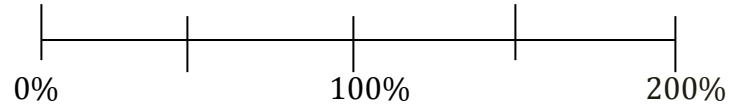
- A) 60
- B) 90
- C) 120
- D) 150

9. Given the following percent line, 40% of 120 is what number?



- A) 24
- B) 48
- C) 72
- D) 96

10. Given the following percent line, 150% of 90 is what number?



- A) 45
- B) 90
- C) 135
- D) 180

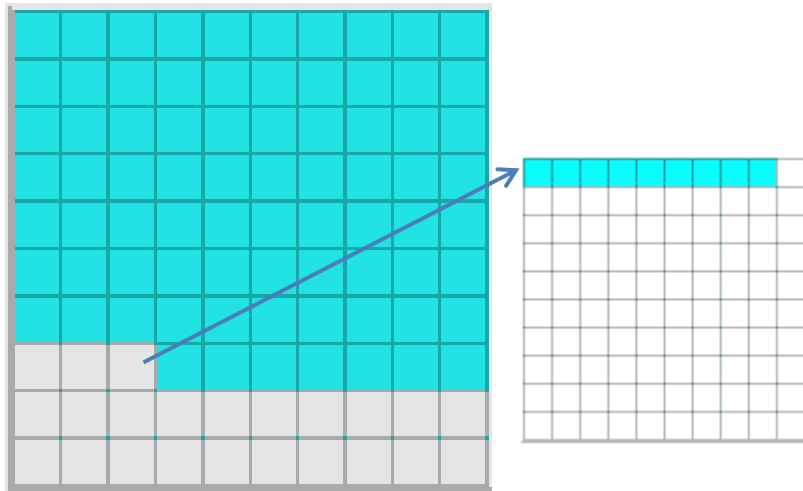
11. A tree was 7.9 m high. The next year it was 12.3 m high. What is the percentage change, rounded to nearest percent?

- A) decrease of 56%
- B) decrease of 36%
- C) increase of 36
- D) increase of 56%

12. When comparing 3 slippers and 7 shoes to 9 boots, what is an equivalent ratio?

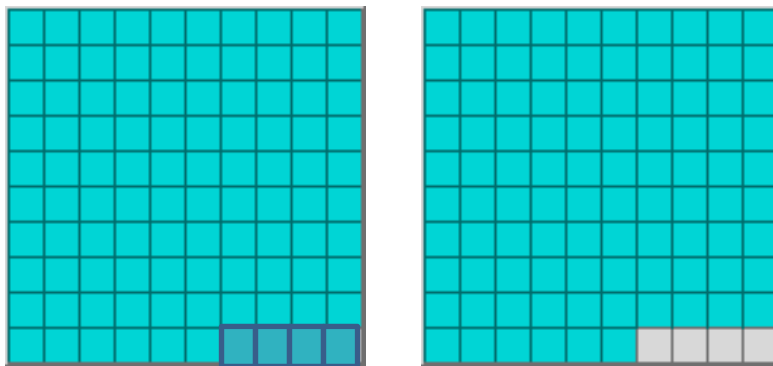
- A) 10:9
- B) 20: 19
- C) 33:49:99
- D) 33:77:99

13. The following graph represents which percent?



- A) 77.09%
- B) 77.9%
- C) 86%
- D) 109%

14. The following graph represents which percent?



- A) 100.096%
- B) 100.96%
- C) 196%
- D) 200%

15. For every 40 people, 18 do not like chocolate. What percent **do** like chocolate?

- A) 22%
- B) 45%
- C) 55%
- D) 68%

16. Which toothpaste is the better buy?

- A) 50 ml for \$1.70
- B) 100 ml for \$1.99
- C) 150 ml for \$2.37
- D) 200 ml for \$3.99

17. In NL, how much tax is on this ipod?

- A) \$14.99
- B) \$19.50
- C) \$130.49
- D) \$169.49



18. Which is the greater rate?

- A) 26 wpm
- B) 33 wpm
- C) 47 wpm
- D) 62 wpm

19. George's mass grew 115% from 92 kg. What is his new mass, in kg?

- A) 23.00
- B) 105.80
- C) 207.00
- D) 11592.80

20. Give Coffee A has 2 scoops coffee compare to 5 cup water and Coffee B has 3 scoops coffee compared to 8 water. Which statement is true?

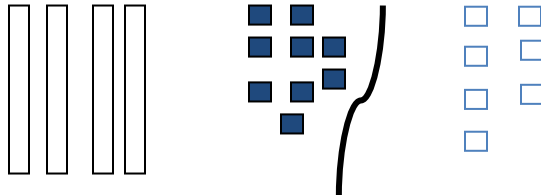
- A) Coffee A is stronger
- B) Coffee A is weaker.
- C) Coffee A and Coffee B are both extremely strong.
- D) Coffee A and Coffee B have the same strength.

21. Susie jogged 3 km in 32 mins. At this speed, how far, in km, can she jog in 40 min?
(Round to nearest tenth)

- A) 0.8
- B) 3.8
- C) 10.7
- D) 13.3

Unit 6: Linear Relations

1. What is the value of x?



- A) $x = -4$
- B) $x = -2$
- C) $x = 2$
- D) $x = 4$

2. What is the missing value for y in $(-2, y)$ using $y = -3x + 4$?

- A) -10
- B) -2
- C) 2
- D) 10

3. What is y in $(4, y)$?

x	y
0	16
1	10
2	4
3	
4	

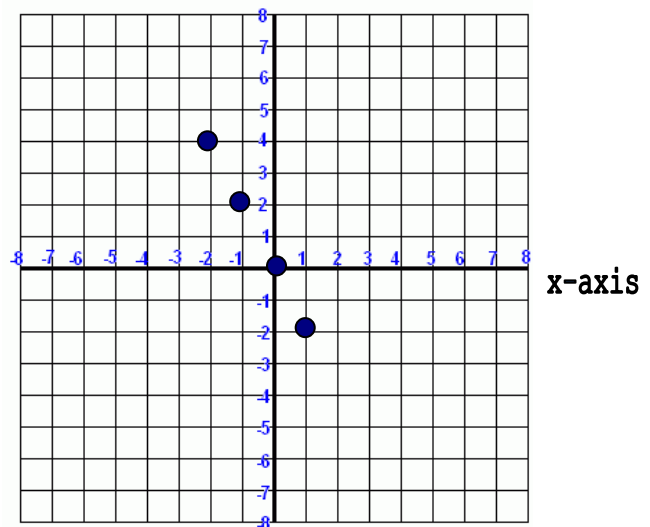
- A) -8
- B) -2
- C) 2
- D) 8

4. Solve $3n + 4 = 10$.

- A) $n = \frac{-14}{3}$
- B) $n = -2$
- C) $n = 2$
- D) $n = \frac{14}{3}$

5. In this linear relation, what is the missing coordinate for $(3, \underline{\quad})$?

- A) $x = -8$
- B) $x = -6$
- C) $y = -4$
- D) $y = -2$

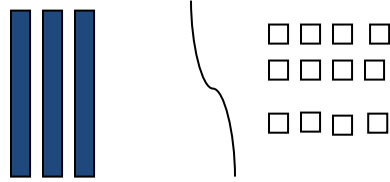


6. Which line contains the **first** mistake?

$$\begin{array}{ll} -3x - 4 = 11 & \\ -3x - 4 + 4 = 11 + 4 & \text{..... LINE 1} \\ -3x = 15 & \text{..... LINE 2} \\ \frac{-3x}{3} = \frac{15}{3} & \text{..... LINE 3} \\ x = 5 & \text{..... LINE 4} \end{array}$$

- A) 1
- B) 2
- C) 3
- D) 4
7. Two more than four times a number is six. Let n be the number.
What is the linear relation?
- A) $4n - 6 = 2$
- B) $4n + 2 = 6$
- C) $5n + 6 = 2$
- D) $6n - 2 = 5$
8. Albert has a party where it cost \$40 to rent a room and \$8 for each person invited?
How much does it cost for 12 people to come to his party?
- A) \$60
- B) \$136
- C) \$416
- D) \$488

9. What is the solution to the linear equation modelled here?



- A) $d = -12$
- B) $d = -4$
- C) $d = 4$
- D) $d = 12$

10. What is the solution to $18 + 5x = 33$?

- A) $x = -10$
- B) $x = -3$
- C) $x = +3$
- D) $x = 10$

11. What is $-4(x - 5)$ in expanded form?

- A) $-9x$
- B) $-4x - 5$
- C) $-4x + 5$
- D) $-4x + 20$

12. What is the linear equation for a number divided by negative three is twelve?

- A) $\frac{x}{12} = -3$
- B) $\frac{x}{-3} = 12$
- C) $x - 3 = 12$
- D) $x + 12 = -3$

13. What is the solution to $7 + \frac{d}{4} = 13$?

- A) 5
- B) 10
- C) 24
- D) 80

14. Three more than a number divided by four is eight. What is the linear equation?

- A) $\frac{x}{4} + 3 = 8$
- B) $\frac{x}{3} + 8 = 4$
- C) $\frac{3}{x} + 4 = 8$
- D) $\frac{x}{4} + 8 = 3$

15. What is the expanded form of $-7(g + 3)$?

- A) $-7g - 21$
- B) $-7g - 3$
- C) $-7g + 3$
- D) $-7g + 21$

16. Solve: $6(k - 3) = 0$?

- A) -3
- B) 0
- C) 3
- D) 21

17. Which statement would best describe the linear relation shown in this table?

x	y
-2	12
-1	6
0	0
1	-6
2	-12

- A) as x decreases by 1, y decreases by 6
- B) as x decreases by 1, y increases by 6
- C) as x increases by 1, y decreases by 6
- D) as x increases by 1, y increases by 6

18. What value makes the point (____, 70) be on the graph of $y = 4x + 30$?

- A) 5
- B) 10
- C) 104
- D) 310

19. George paid \$97 to rent a boat. The rate was \$25 plus \$9 per hours.

How many hours did George rent the boat?

- A) 8
- B) 33
- C) 63
- D) 131

20. For **any linear equation**, which statement is TRUE?

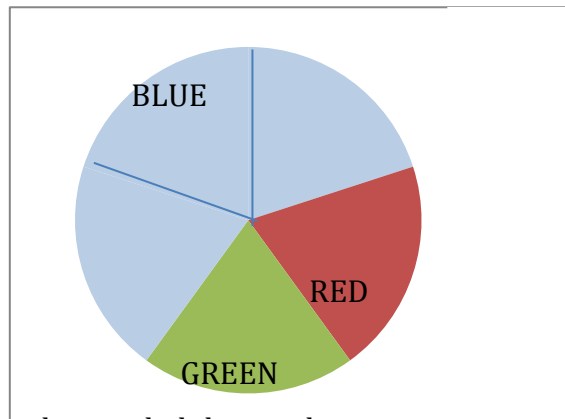
- A) The graph is a straight line.
- B) The graph is a curved line..
- C) The graph goes uphill only.
- D) The graph goes down hill only.

Unit 7: Graph, Misinterpretations and Probability

1. Which graph would **best** display the number of boys and girls who like the colours red, blue, green or yellow at Xavier?
 - A) Bar graph
 - B) Circle graph
 - C) Double bar graph
 - D) Pictograph
2. Which graph would **best** display the number of T.V.s in five friend's houses?
 - A) Circle graph
 - B) Double bar graph
 - C) Line graph
 - D) Pictograph
3. Which graph would **best** display percentage of favourite cartoon characters for grade 9 students at Xavier?
 - A) Bar graph
 - B) Circle graph
 - C) Double bar graph
 - D) Line graph
4. Which graph would **best** display all the grade dances showing numbers of each grade attending a dance?
 - A) Bar graph
 - B) Circle graph
 - C) Double bar graph
 - D) Line graph
5. Which graph would **best** display the variation of a child's height over a ten year period?
 - A) Bar graph
 - B) Circle graph
 - C) Double bar graph
 - D) Line graph

6. Given the spinner below, what is the probability of getting the lightest sector?

- A) $\frac{3}{5}$
- B) $\frac{1}{3}$
- C) $\frac{2}{3}$
- D) $\frac{3}{3}$



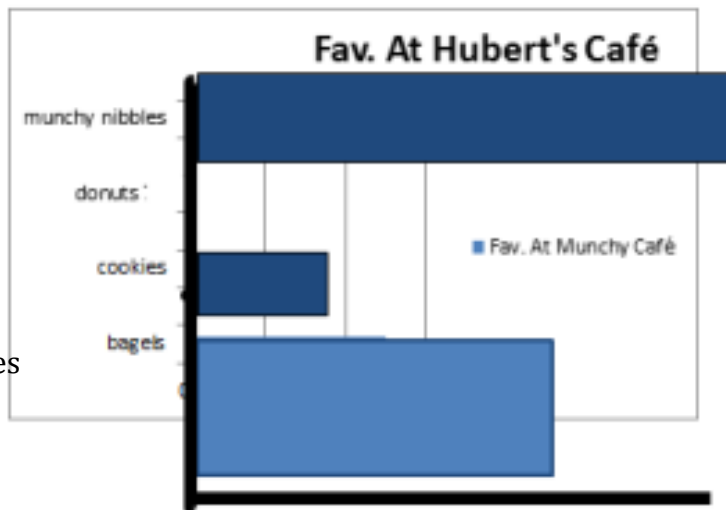
7. When using a standard dice and a coin, what probability is the same as getting a heads and a composite?

- A) $P(H \text{ and } 3)$
- B) $P(H \text{ and even})$
- C) $P(H \text{ and } <3)$
- D) $P(T \text{ and } >1)$

8. Use this bar graph below, when finding the favourite items at the café, what is the misinterpretation?

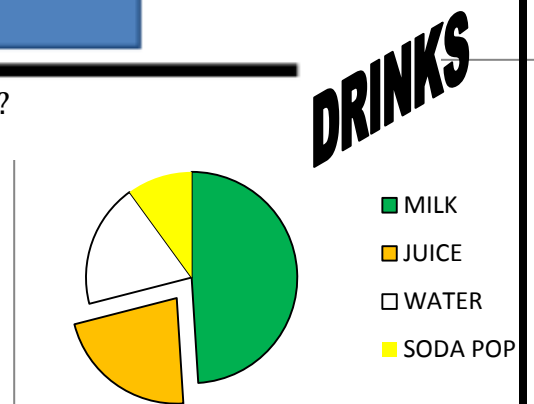
The favourite is...

- A) Cookies
- B) Bagets
- C) Donuts
- D) Munchy nibbles



9. In this circle graph, which is the actual favourite drink?

- A) juice
- B) milk
- C) soda pop
- D) water

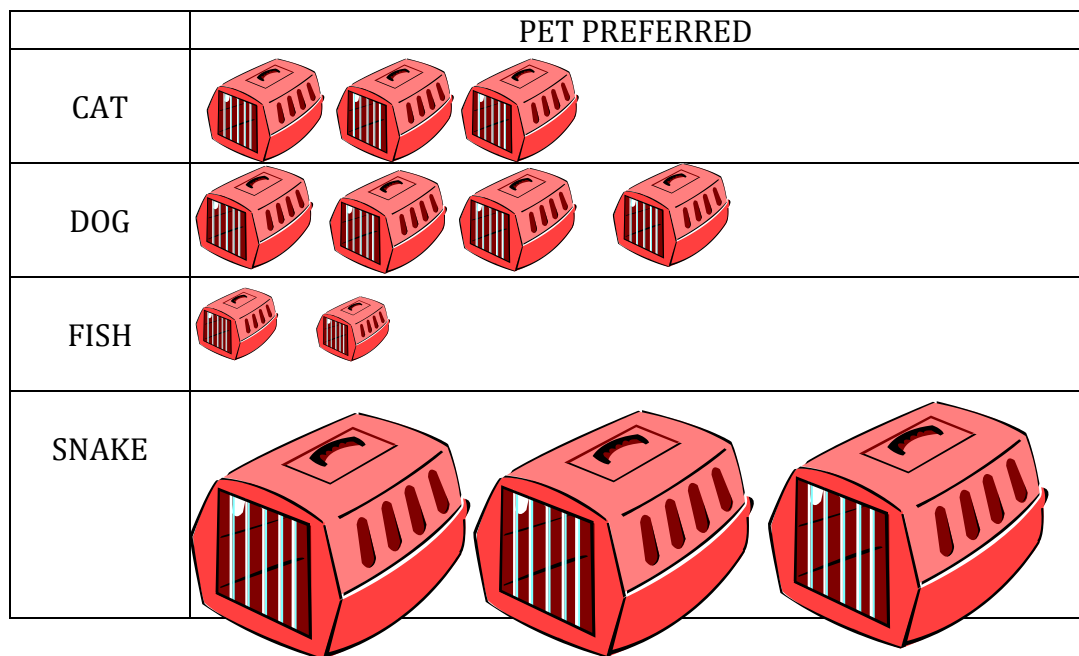


10. In this pictograph (graph C), which is the looks to be the favourite pet?

- A) Cat
- B) Dog
- C) Fish
- D) snake

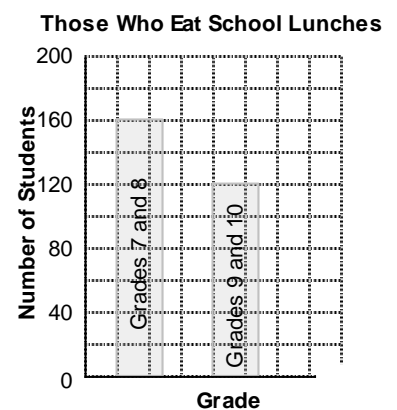
Graph C

KEY:  = 200 Pets



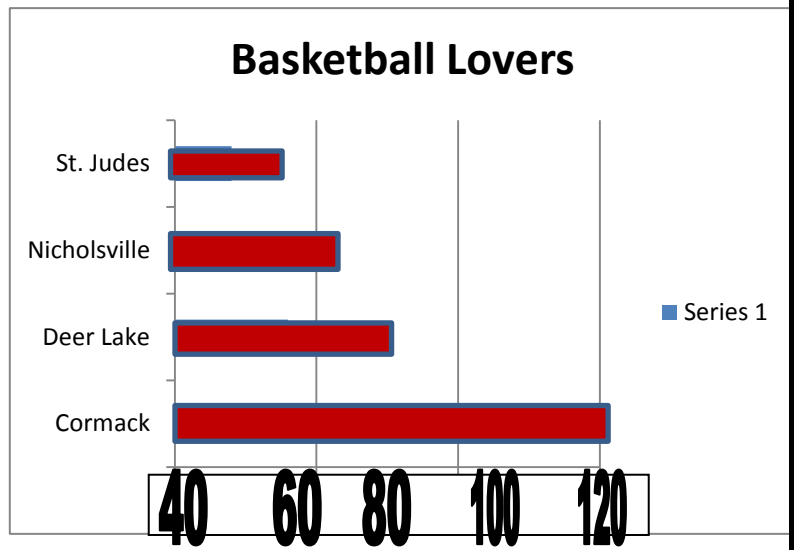
11. What is the difference in number of Grade 7 and 8 compared to grades 9 and 10 who ate school lunches?

- A) 40
- B) 120
- C) 160
- D) 280



12. Which community **appears** to be twice the size of St. Jude's data?

- A) Cormack
- B) Deer Lake
- C) Nicholasville
- D) St. Jude's



13. In the **Basketball Lover's Graph** from question#14, which community's data **actually** doubles another?

- A) Deer Lake and St. Jude's
- B) Cormack and Nicholasville
- C) Cormack and St. Jude's
- D) Deer Lake and Nicholasville

14. Given a bowl of marbles with 2 blue, 7 red, 8 yellow, 1 white and 2 green.

What is the $P(B \text{ or } W \text{ or } G)$?

- A) 0
- B) $1/4$
- C) $1/3$
- D) $1/2$

15. When tossing a coin three times, what is the probability of getting heads?

- A) $1/16$
- B) $1/8$
- C) $1/4$
- D) $1/2$

16. A custom dice has XAVIER on it. What is the probability of getting a consonant?

- A) 0 (consonants are NOT VOWELS)
B) $\frac{1}{6}$
C) $\frac{1}{3}$
D) $\frac{1}{2}$

17. When flipping a coin, which statement is FALSE?

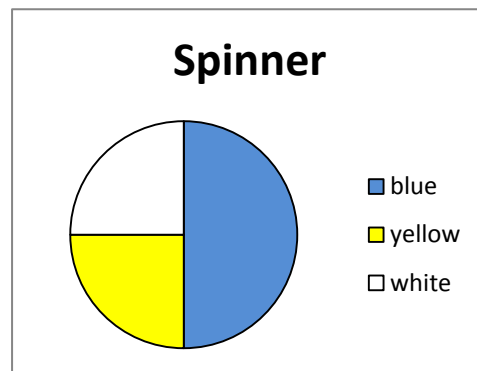
- A) Experimental probability does not always give you the theoretical probability.
B) Theoretically, you should get 4 heads and 4 tails when flipped 8 times.
C) The probability of getting heads or tails is a certain event.
D) When you flip the coin 60 times, you will always get 30 heads and 30 tails

18. Mr. Beaupre decided to flip a coin 10 times and got 6 tails. He got bored he decided to flip the coin 80 times. Based ONLY on the result of his first experiment, how many tails did he expect to get?

- A) 8
B) 16
C) 32
D) 48

19. Using the spinner given, what is the probability of getting a blue for 3 individual spins in a row?

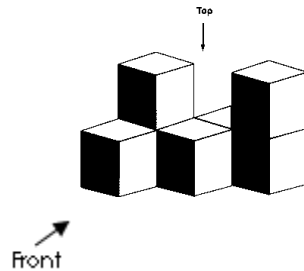
- A) $\frac{1}{8}$
B) $\frac{1}{4}$
C) $\frac{3}{4}$
D) 1



20. Given: A standard 6-sided dice. What is the probability of getting a 5 in the first roll , an even number in the second roll and a number <5 in the third roll?
- A) $1/72$
 - B) $1/14$
 - C) $1/2$
 - D) $2/3$
21. If you randomly guess the answers to the first 5 multiple choice questions on a multiple choice test which has 4 choices per question, what is the probability you will get them all right?
- A) $1/20$
 - B) $1/25$
 - C) $1/1024$
 - D) $1/3125$
22. How do you describe picking a red marble from a bag of red marbles?
- A) Certain event
 - B) Impossible event
 - C) Likely event
 - D) Unlikely event
23. What is the probability of picking a purple marble from a bag containing green, blue and red marbles?
- A) Certain event
 - B) Likely event
 - C) Impossible event
 - D) Unlikely event
24. What is the probability of getting a prime number on a standard dice?
- A) $1/6$
 - B) $1/4$
 - C) $1/2$
 - D) $2/3$

Unit 8: Geometry and Tessellations

1. While babysitting, Patricia watched as two-year old Nicole made the following pattern with her building blocks. Which of the following represents the top view of Nicole's blocks?

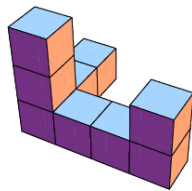


- A) B) C) D)

2. Which of the following represents the right side view of Nicole's blocks in **Question 1**?

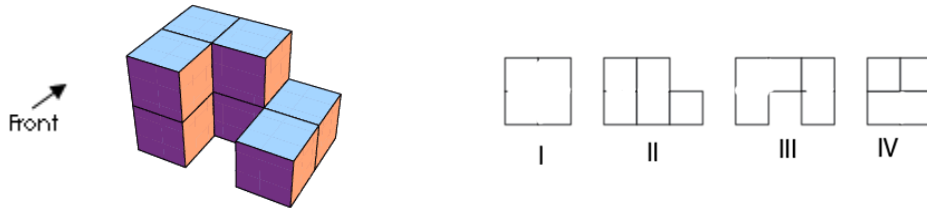
- A) B) C) D)

3. Justin created a three dimensional object using blocks. Which of the following is the only view of his object?



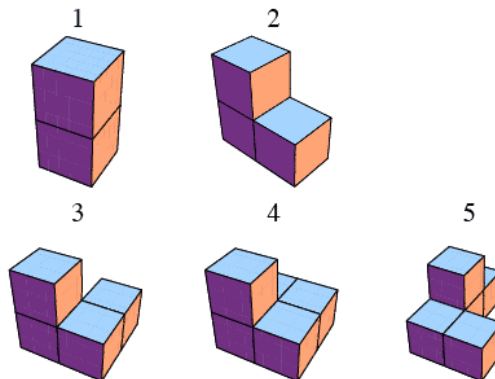
- A) B) C) D)

4. A "house" is created out of blocks as shown below, along with its views. In the order of top, front, left and right views of the "house", what are the correct views?



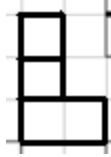
- A) I, II, III, and IV
- B) I, III, II, and IV
- C) III, II, I, and IV
- D) III, I, II, and IV

5. Five objects are shown below. Which of the shapes shown could have this view ?



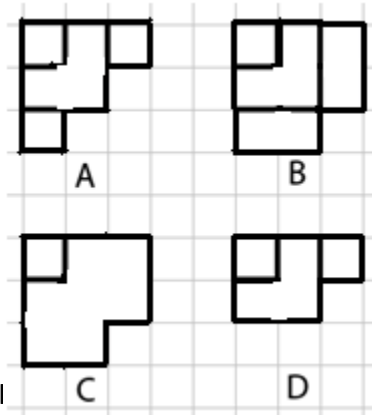
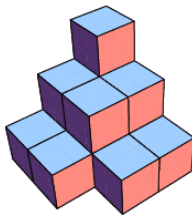
- A) Object 2 only
- B) Objects 2 and 3
- C) Objects 2, 3, and 4
- D) Objects 2, 3, 4, and 5

6. Refer to the five diagrams in question 5. Which of the shapes shown could have a view that looks like the view shown below?



- A) Object 2 only
- B) Objects 3 only
- C) Objects 5 only
- D) Objects 3 and 5

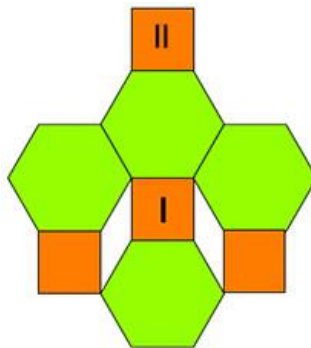
7. Which of the following would be the top view of the structure shown below?



8. Chuck is creating a tessellation and what he transformation(s) could be used for square I

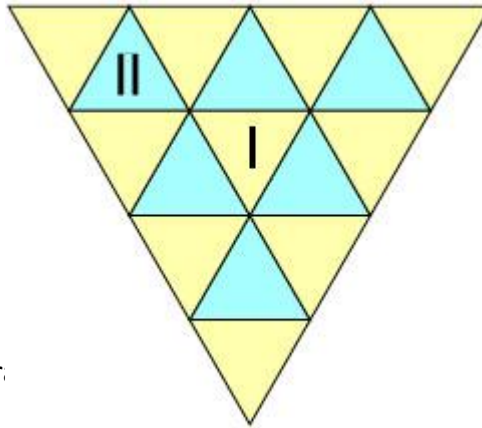
Which

- A) a translation
- B) a reflection
- C) a rotation
- D) all of the above



9. The diagram below shows a tessellation of equilateral triangles. What is the transformation needed for triangle II to be an image of triangle I ?

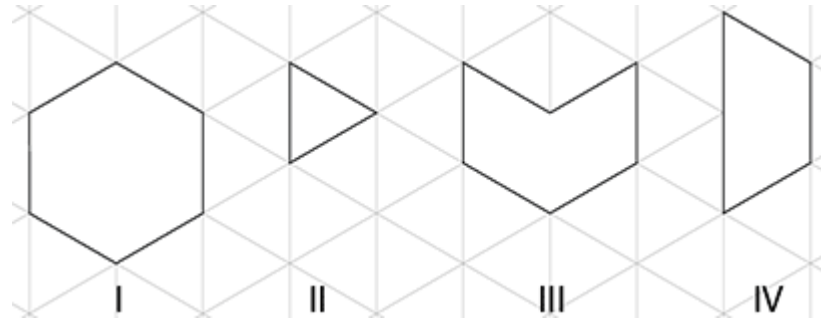
- A) a rotation
- B) a reflection
- C) a translation
- D) A or B



10. The shapes shown have been drawn on a grid. Which of the shapes will tessellate?

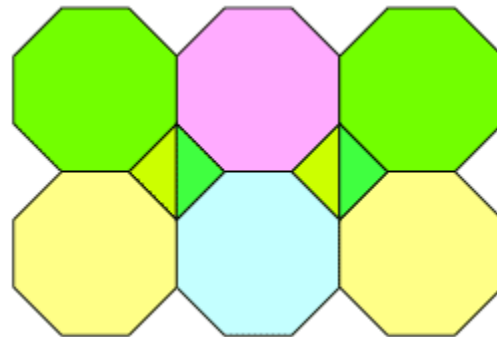
Which of the shapes will tessellate?

- A) I only
- B) III only
- C) I, II, and IV
- D) I, II, III, IV



11. Ed creates a tessellation with octagons and triangles. What must the three angles in the triangle be?

- A) 45° , 45° , and 90°
- B) 30° , 30° , and 120°
- C) 60° , 60° , and 60°
- D) 45° , 90° , and 90°



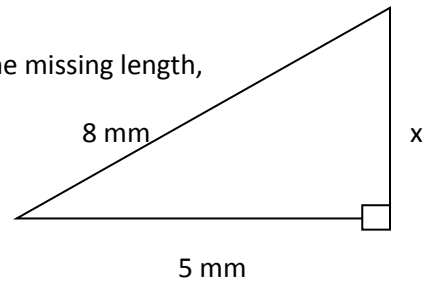
INSTRUCTIONS: Use only this chart for **Questions 12 , 13 and 14..**
It describes interior angles for some regular polygons.

Regular polygon	Size of interior angles
Equilateral triangle (3)	60°
Square (4)	90°
Pentagon (5)	108°
Hexagon (6)	120°
Octagon (8)	135°
Dodecagon (12)	150°

12. Jenny wanted to use only **two octagons** in a tessellation .
Which of the other polygons listed she could use (in any combination) to make this possible?
- A) The square only
 - B) The equilateral triangle only
 - C) The square with the hexagon
 - D) Two pentagons
13. Fred wanted to use **two dodecagon** in his tessellation.
Which of the other polygons listed she could use (in any combination) to make this possible?
- A) The square only
 - B) The equilateral triangle only
 - C) The square with the hexagon
 - D) Two pentagons
14. George wanted to use **one dodecagon** in his tessellation.
Which of the other polygons listed she could use (in any combination) to make this possible?
- A) The square only
 - B) The equilateral triangle only
 - C) The square with the hexagon
 - D) Two pentagons

PYTHAGOREAN THEOREM

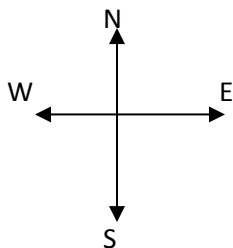
4. Given the following right triangle, find the missing length, to the nearest tenth.



5. Robert uses a 6 m ladder to climb into his upstairs window. If the bottom of the ladder is 3 m from the side of the house, how high (to the nearest tenth) is the windowsill from the ground? **MAKE A DIAGRAM** to support your answer.

6. The dimensions of a rectangular frame is 3 cm by 5 cm. A carpenter wants to put a diagonal brace between the opposite corners. Find the length of this brace. **MAKE A DIAGRAM** to support your answer.

7. Two ducks leave the same place at the same time. One duck flies 2 km north and the other flies 5 km east. How far are the ducks from each other? Make a diagram and round to nearest tenth.



Unit 2: Integers

1. Evaluate each expression.

A) $-8 + (+2) \times (+5)$

C. $15 \div (-3) + (-2) \times (-5)$

B) $\frac{(-3) + (-11)}{-8 + (7)} - 2$

D) $6 - 5 [-2 + (+6)] + 3$

2. Use a model of your choice (number line or bank model) to find BOTH answers.

Explain your models.

A) $(+2) \times (-4) = \underline{\hspace{2cm}}$

B) $(-14) \div (+7) = \underline{\hspace{2cm}}$

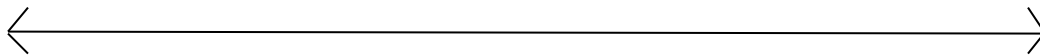
3. George drove from Deer Lake to Clarenville at an average speed of 100 km/h. After 4 hours of driving, George was still 150 km away from Clarenville. How far apart, in kms, are Deer Lake and Clarenville?

Unit 3: FRACTIONS

1. A) Draw the area model for $1\frac{1}{3} \times 2\frac{1}{4}$ THEN state your answer.

B) Model $4 \times \frac{2}{5}$ with the model of your choice.

C) Use a numberline to show $\frac{1}{2} \div \frac{2}{3}$. Give the answer: _____



2. Evaluate. Remember: **SHOW ALL WORKING!**

A) $\frac{4}{5} \div \frac{12}{30} + \frac{1}{2} \times \frac{3}{5}$

$$\text{B) } 3\frac{2}{3} \times 4$$

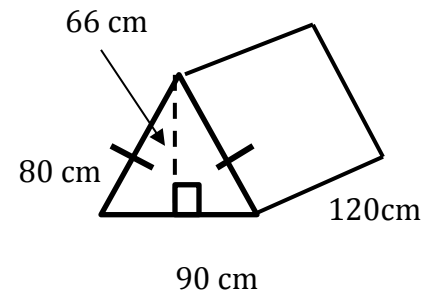
$$\text{C) } \left(2\frac{1}{3} - 1\frac{2}{5}\right) \times \frac{15}{7}$$

$$\text{D) } \frac{11}{9} - \frac{5}{18} \times 2$$

$$\text{E) } \frac{1}{4} + \frac{4}{5} \div \frac{2}{3}$$

Unit 4: 3-d shapes

1. Mariann decided to make a triangular treat for her dog, Fred. How much batter is needed to fill the triangular mold ?

**Unit 5; percent, Decimals, Ratios and Rates**

1. Complete the table. Remember: You may need to reduce your answer.

Percent	Decimal	Fraction (simplified)	Part-to-Whole Ratio
	0.38		
227%			
			3:2500
$\frac{1}{8} \% =$			

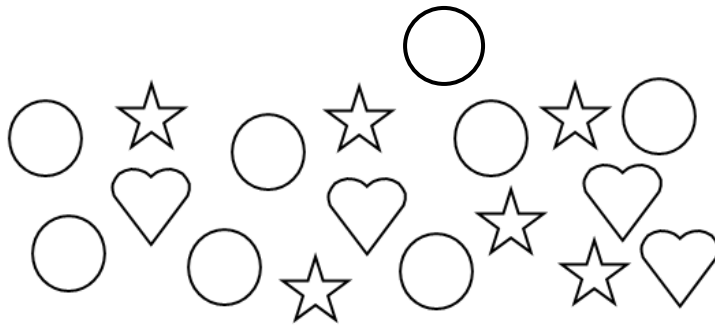
2. Which is the lighter paint?

Mixture A 5 blue to 8 white

MIXTURE B 4 blue to 9 white

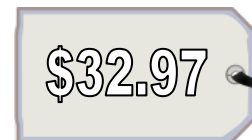
Lighter paint is _____

3. Using the diagram below, complete the table.



RATIO in words	Numeric ratio
hearts to stars	
Shapes with Curves to Shapes without Curves	

4. Aunt Marg lives in Deer Lake, Newfoundland. If there is a 20% sale on, what does me hant pay, including tax, for this shirt?



Unit 6: Linear relations**PART B: SHORT ANSWER (9) INSTRUCTIONS: SHOW YOUR WORKINGS.**

1. A) Fred bought soil for \$14 and 7 bushes for a total of \$77. What is the cost of ONE bush?

B) Verify that (-7) is a solution for the equation: $-2y + 4 = 18$

2. The price of a calculator was reduced by \$7. Mrs. Hyde bought 10 calculators for our school. If the cost, before taxes totalled \$200, what was the original price of the calculators?

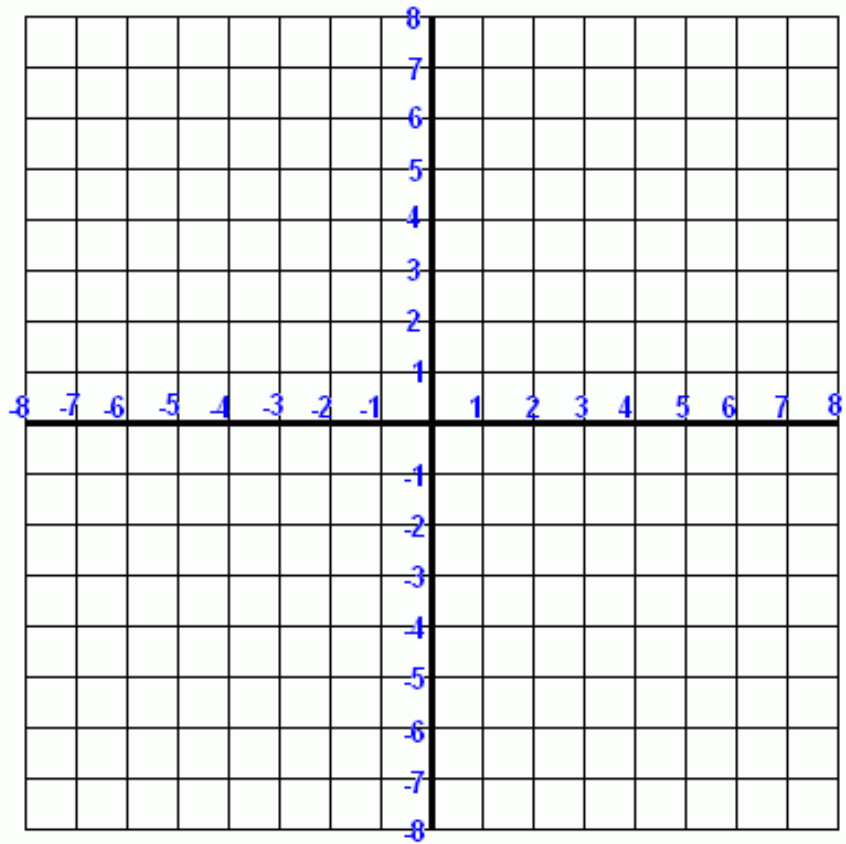
3. Based on this table only, describe the x and y relationship which shows this a linear graph. (1)

x	y
1	-8
2	-3
3	2
4	7

ANSWER: _____

4. Using $y=3x-1$, plot the points on the graph given.

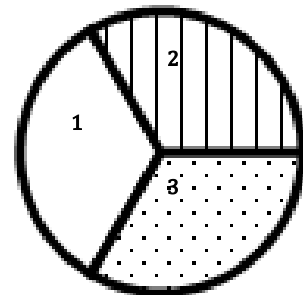
x	y
-2	
-1	
0	
1	
2	



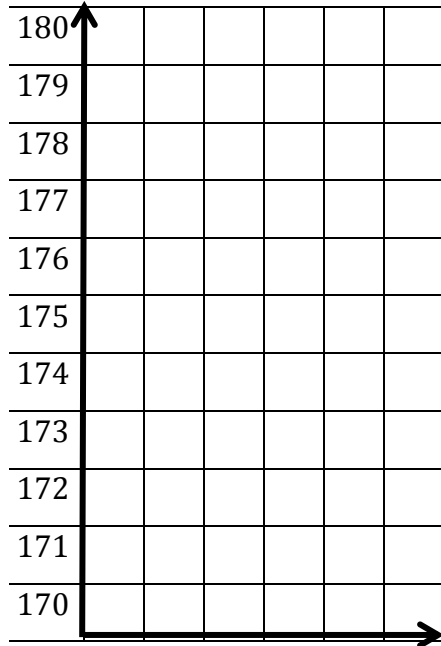
Unit 7: Misinterpreting Graph and F

Part B: Constucted Responses (4)

25. Draw a tree diagram showing the sample space for tossing a coin and spinning a spinner numbered 1, 2, 3.



26. A) Graph using the scale given to show how to find number of students who ate lunch at school? Gr 7 -176 gr 8 - 177 gr 9s - 172

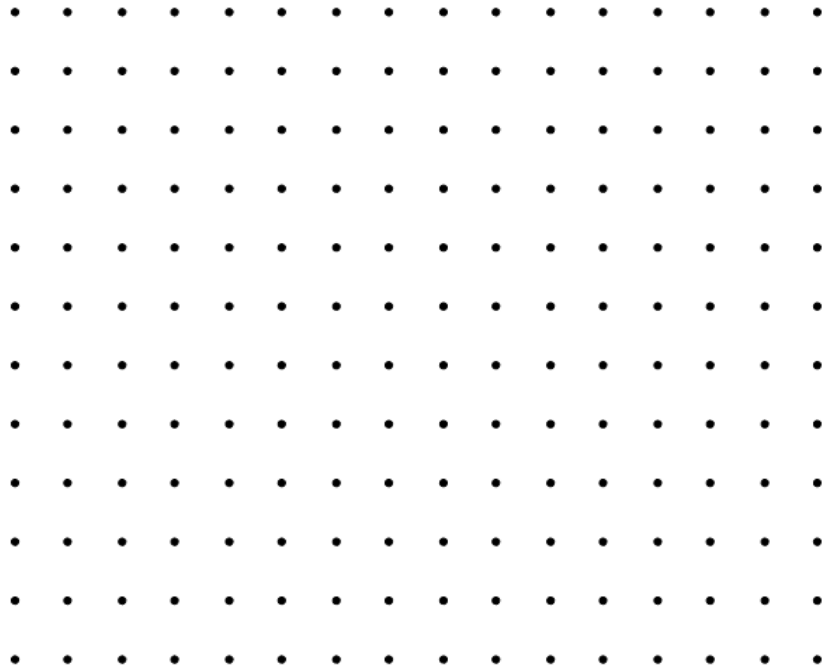
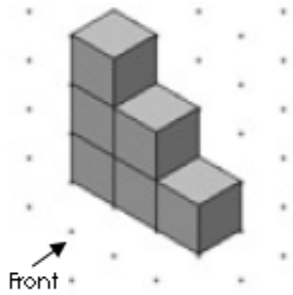


- B) What misinterpretation is given here in this bar graph? _____

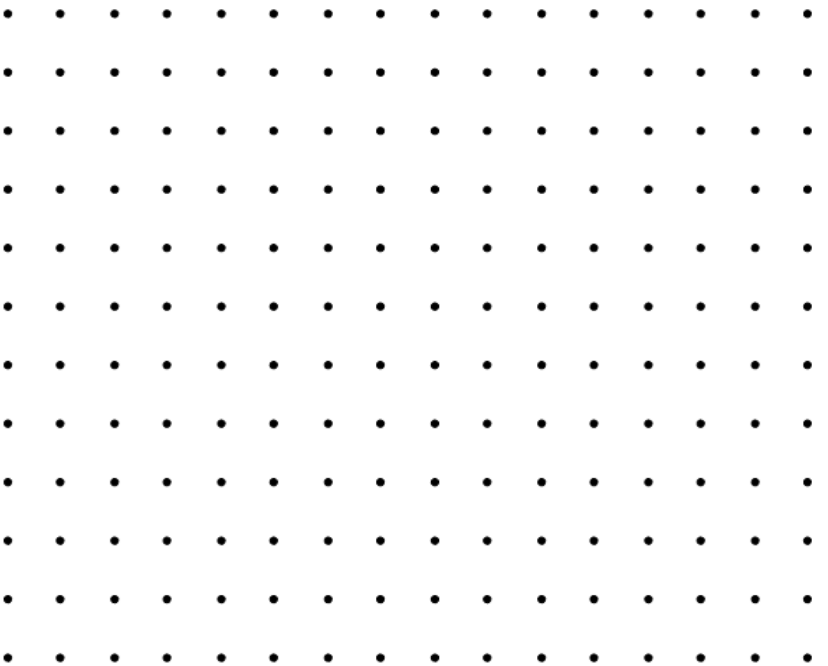
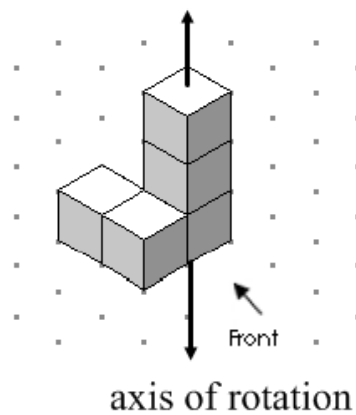
- C) What is the average of: Gr 7s - 176, Grade 8s -177 and Gr 9s -172 ?

Unit 8: Geometry and Tessellations

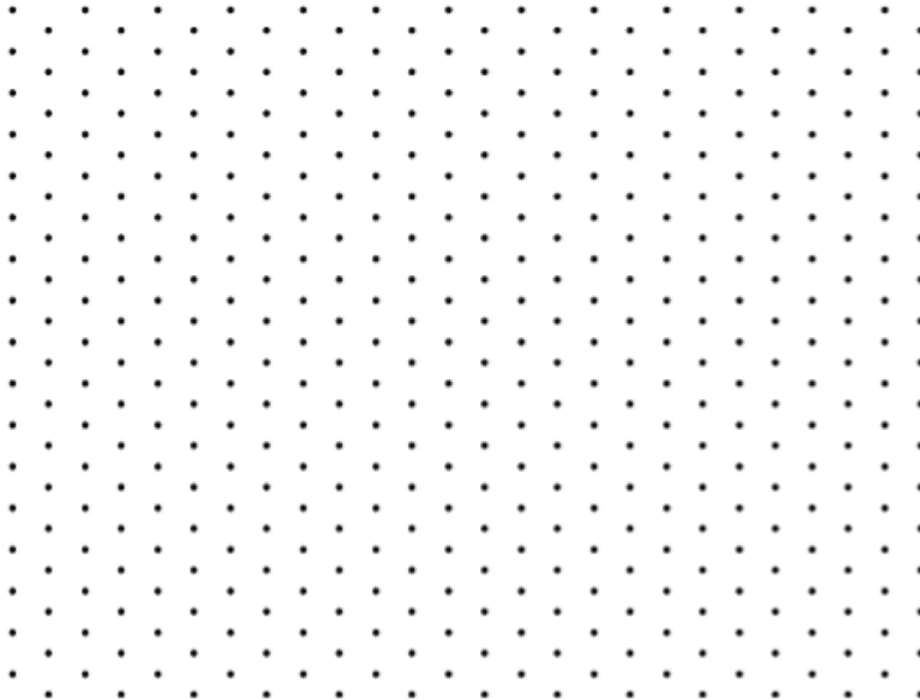
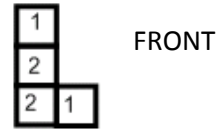
1. Use the square dot paper. Sketch the front, top, and side views of this object.



2. Rotate the figure below 180 degrees clockwise around the axis of rotation. Draw the front, side, top views of the rotated shape on the dotted paper.



3. Given the mat plan, draw the front left corner view .



ANSWER KEYS

Unit 1; Powers, Roots and Pythagorean Theorem

1. C 2. B 3. A 4. A 5.C 6. C 7.B 8.B 9.B 10. B 11.C 12.A

Unit 2: Integers

1.C 2.A 3.A 4.B 5.B 6. D 7.D 8.C 9.B 10.B 11.A 12.C 13.A 14.C 15.D 16.A
17.D 18.A 19. B

Unit 3: Fractions

1.B 2.C 3.D 4.C 5.A 6.B 7.B 8.C 9.C 10.D 11.B 12.C 13.C 14.A 15.B 16.A

Unit 4: 3-d Shapes

1.C 2.D 3.D 4.C 5.D 6.C 7.B 8.C 9. 35640 cm³

Unit 5; Percents, Decimals, Rates and Ratios

1.B 2.B 3.A 4.B 5.A 6.C 7.D 8.D 9.B 10.C 11.D 12.A 13.A 14.C 15.C 16.C
17.B 18.D 19.B 20.A 21.B 22.C

Unit 6: Linear relations

1.D 2.D 3.A 4.C 5.B 6.A 7.B 8.B 9.B 10.C 11.D 12.B 13.C 14.A 15.A 16.B
17.D 18.B 19. A 20.A

Unit 7: Graphs, Misinterpretations and Probability

1.C 2.D 3.B 4.A 5.D 6.A 7.C 8.B 9.A 10.D 11.A 12.B 13.C 14.B 15.B 16.D
17.D 18.D 19.A 20.A 21.C 22.C 23.C 24.C

Unit 8: Geometry and Tessellations

1.B 2.D 3.C 4.C 5.C 6.C 7.B 8.D 9.D 10.D 11.A 12.A 13.B 14.D 15.C