

Labrador School Board

Grade 8 Mathematics

District Assessment

June 14th, 2013

Name: _____

Teacher: _____

Section 2: Calculator Section – 45 marks

You **are permitted** to use a calculator. You are permitted to use any math manipulatives that your teacher has used with you this year.

Questions 6-30 (Selected Response): These are worth 1 mark each. Even though you have to choose an answer, you may have to work things out on scrap paper. **Record your choices on the same sheet you used for your Section 1 responses.**

Questions 5-13 (constructed response): Answers are to be done in the spaces provided. Students are reminded to show **all** steps/calculations since credit may be given for incomplete or partially correct solutions. **Numerical answers without workings/explanation will not merit full credit.**

This is not a timed-test. You are allowed enough time to complete all items.

Grade 8 Mathematics

Formulae

Surface Area	Cylinder $SA = 2\pi r^2 + 2\pi rh$ <i>or</i> $SA = 2\pi r^2 + \pi dh$
Volume	$V = \text{Area of Base} \times \text{Height}$
Pi	$\pi = 3.14$
Pythagorean Theorem	$a^2 + b^2 = c^2$

Section B – Selected Response: Circle your responses on the answer sheet provided.

6. A square has an area of 169 m^2 . What is the perimeter, in metres?
- A) 13
 - B) 39
 - C) 52
 - D) 85
7. Which set is a Pythagorean Triple?
- A) 3, 3, 6
 - B) 7, 8, 9
 - C) 10, 24, 26
 - D) 20, 30, 40
8. Evaluate: $\frac{4+3 \times (-8)}{-2}$
- A) -28
 - B) -10
 - C) +10
 - D) +28
9. Sam has \$54 to buy movie tickets. He buys 2 tickets online for \$7 each. Tickets at the theatre are \$8 each. How many tickets can he buy at the theatre?
- A) 4
 - B) 5
 - C) 6
 - D) 7

10. Kara's class recorded information about the daily low temperature ($^{\circ}\text{C}$) for 4 consecutive days.

Day	Daily Low Temperature
Monday	-4
Tuesday	6 times Monday's
Wednesday	$\frac{1}{4}$ of Tuesdays
Thursday	$\frac{1}{2}$ of Wednesdays

What was the daily low temperature on Thursday?

- A) -8
- B) -6
- C) -4
- D) -3
-
11. A recipe for 1 batch of cookies requires $\frac{1}{3}$ of a cup of cooking oil. How many cups of cooking oil would be required for $4\frac{1}{2}$ batches of cookies?
- A) $1\frac{1}{2}$
- B) $4\frac{1}{6}$
- C) $4\frac{5}{6}$
- D) $13\frac{1}{2}$

12. In which step was the first error made?

$$\left(\frac{2}{3} \div \frac{1}{2}\right) \div \left(\frac{1}{3} \times \frac{1}{4}\right)$$

$$\left(\frac{2}{3} \times \frac{2}{1}\right) \div \left(\frac{1}{3} \times \frac{1}{4}\right) \quad \text{Step 1}$$

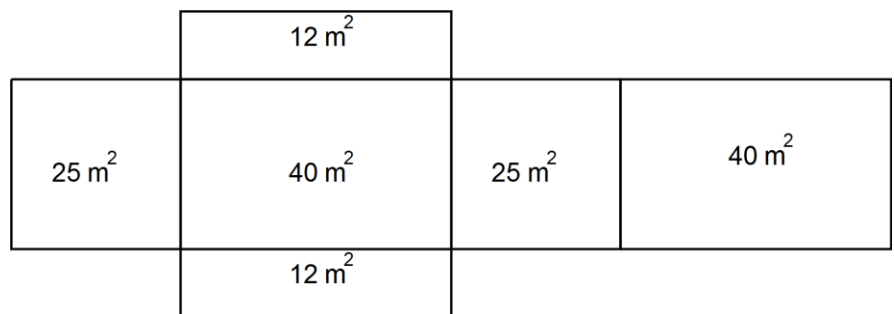
$$\left(\frac{4}{3}\right) \div \left(\frac{1}{7}\right) \quad \text{Step 2}$$

$$\left(\frac{4}{3}\right) \times \left(\frac{7}{1}\right) \quad \text{Step 3}$$

$$\frac{28}{3} \quad \text{Step 4}$$

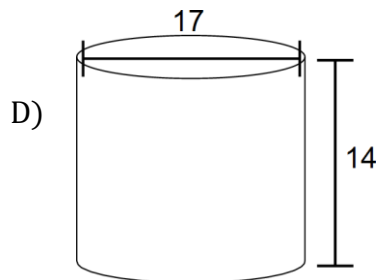
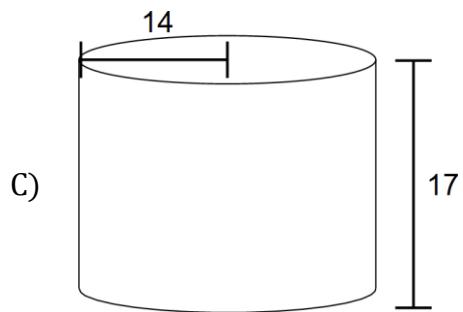
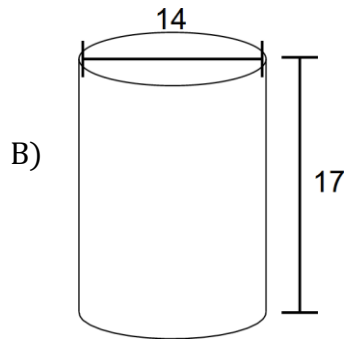
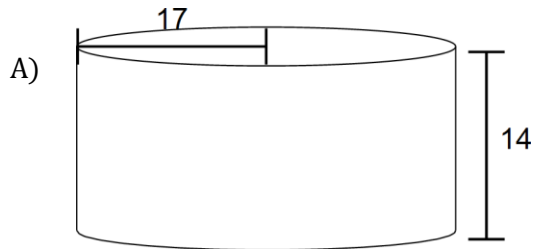
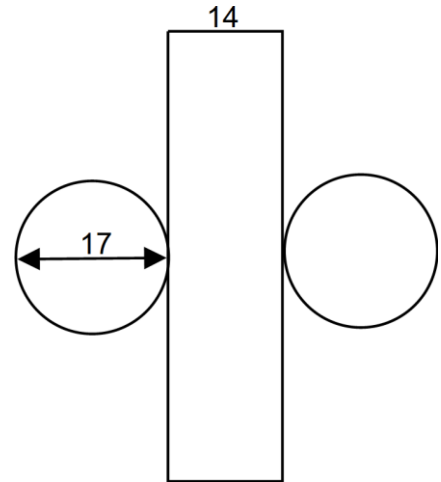
- A) Step 1
- B) Step 2
- C) Step 3
- D) Step 4

13. What is the surface area, in m^2 , of the prism?



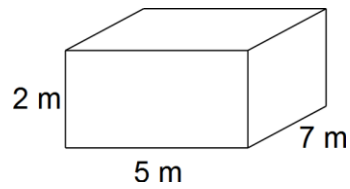
- A) 40
- B) 77
- C) 154
- D) 308

14. Which solid can be constructed from this net to the right?



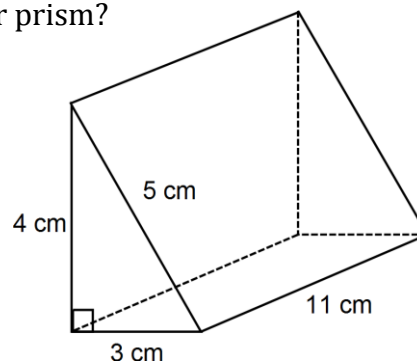
15. What is the total surface area, in m^2 , of the rectangular prism?

- A) 14
- B) 59
- C) 70
- D) 118



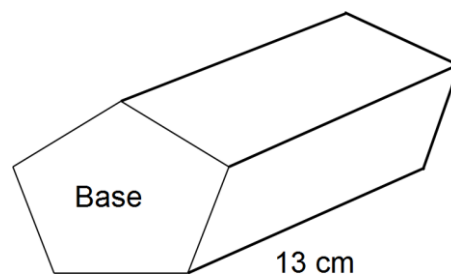
16. What is the volume, in cm^3 , of this triangular prism?

- A) 66
- B) 132
- C) 144
- D) 660



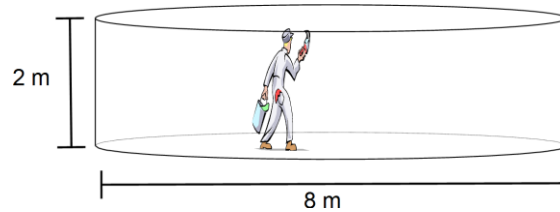
17. The volume of this prism is 195 cm^3 . What is the area, in cm^2 , of the base?

- A) 15
- B) 65
- C) 182
- D) 2535



18. The inside of an empty swimming pool needs to be painted. If one can of paint covers 12 m^2 , how many cans of paint will be needed?

- A) 9
- B) 13
- C) 26
- D) 42



19. What is 0.8 % as a fraction?

- A) $\frac{8}{10000}$
- B) $\frac{8}{1000}$
- C) $\frac{8}{100}$
- D) $\frac{8}{10}$

20. What is the value of p ?

$$4:7 = p:56$$

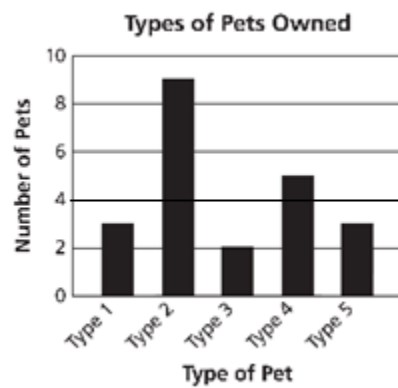
- A) 32
- B) 53
- C) 59
- D) 98

21. Jumping Jelly Beans Candy Company can produce 100 tins of jelly beans in 20 minutes. How many tins of jelly beans can they produce in 2 hours?
- A) 10
 - B) 24
 - C) 300
 - D) 600
22. Last year Central Junior High won 15 volleyball matches. This year they won 22 matches. What is the approximate percent change in matches won?
- A) -47%
 - B) -32%
 - C) $+32\%$
 - D) $+47\%$
23. Solve for x : $-2(x + 6) = -8$
- A) -14
 - B) -2
 - C) $+7$
 - D) $+10$
24. Solve for x : $-15 = 3x + 6$
- A) -7
 - B) -3
 - C) 3
 - D) 7

25. A new sports store is giving away backpacks at their grand opening. There are 3 sizes (small, medium, large) and 4 colours (yellow, red, blue and green). What is the probability of winning a large, blue backpack?

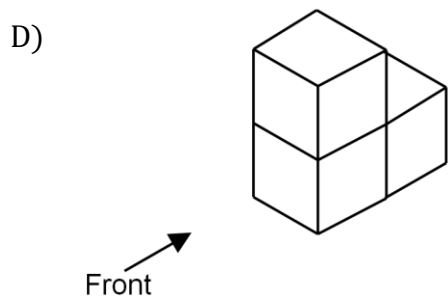
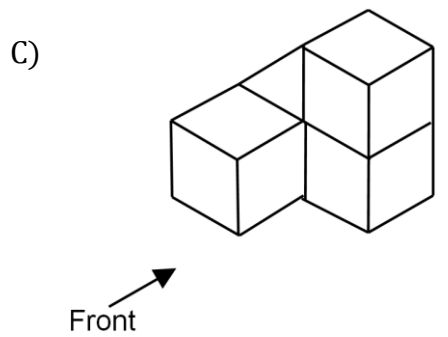
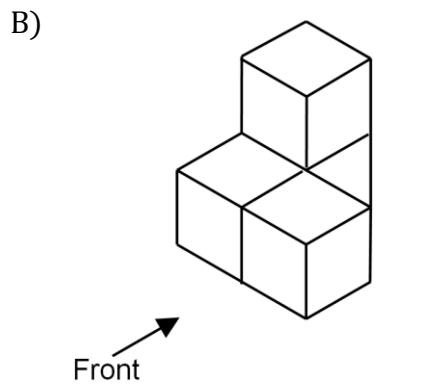
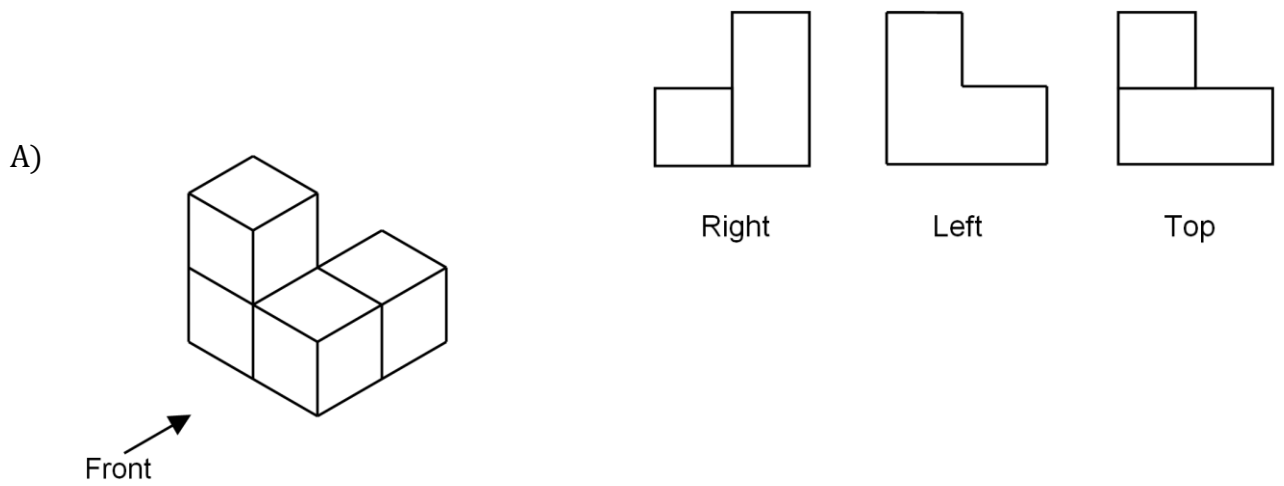
- A) $\frac{1}{12}$
- B) $\frac{1}{7}$
- C) $\frac{2}{7}$
- D) $\frac{7}{12}$

26. What is wrong with this graph?

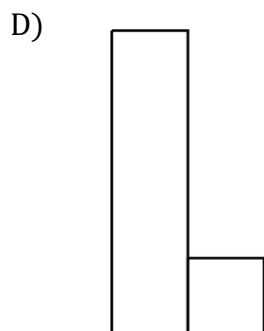
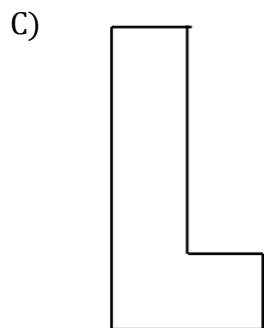
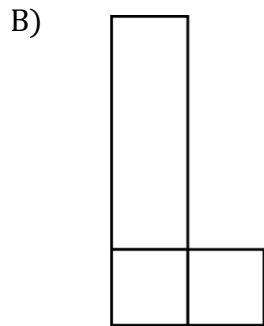
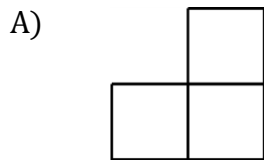
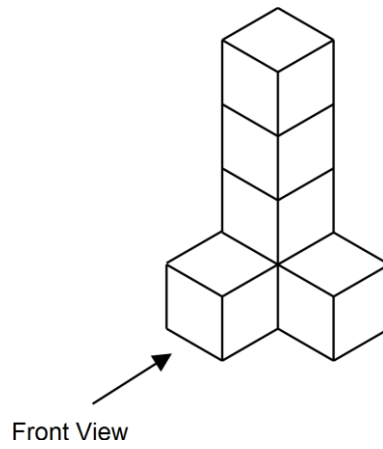


- A) The bars are not arranged from longest to shortest.
- B) The label on the vertical axis does not include the unit used.
- C) The horizontal axis does not identify the type of pets owned.
- D) The vertical scale only shows even numbers.

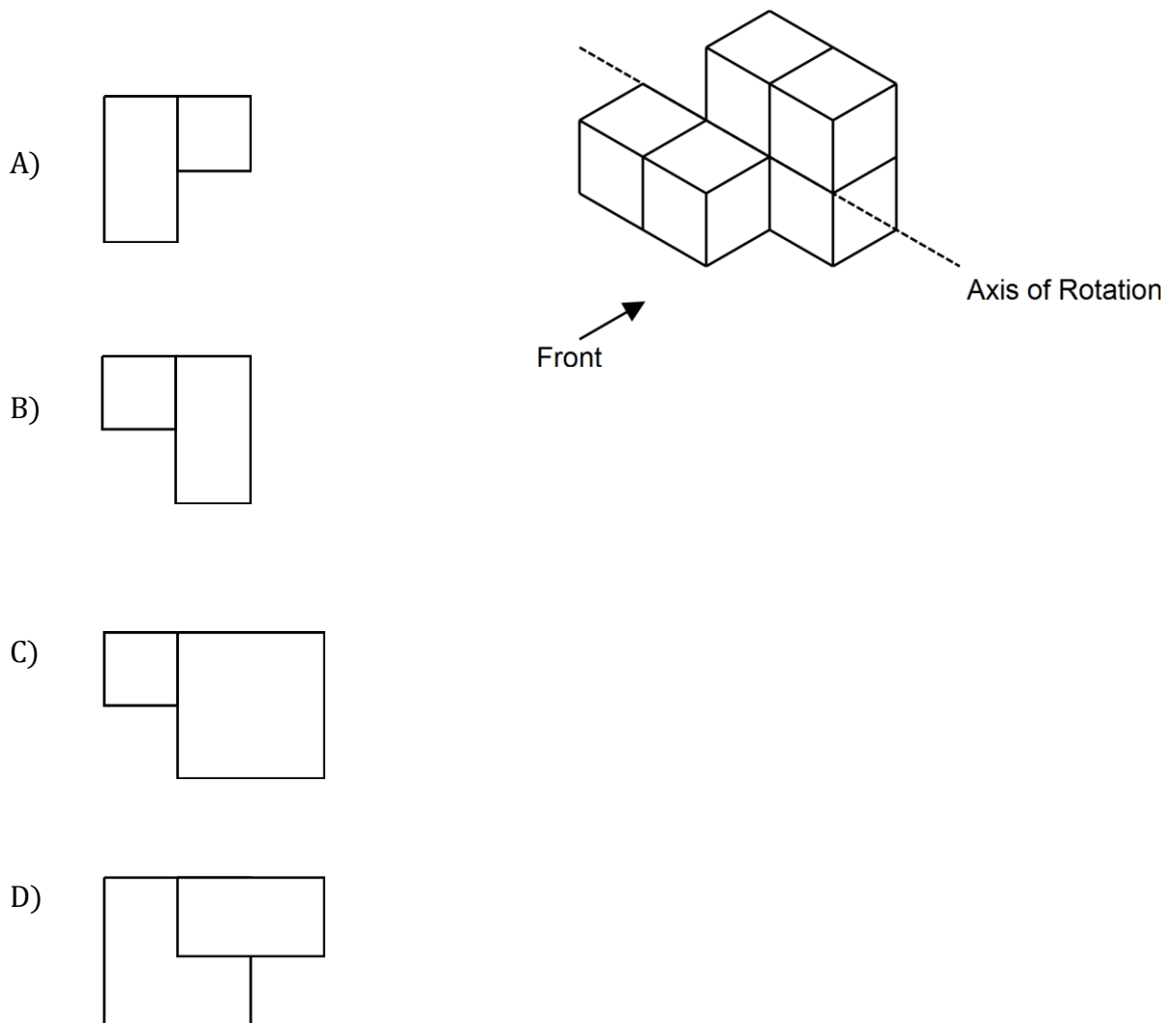
27. What 3-D object is made using the views to the right?



28. What is the left view of this object?



29. What is the front view of the object after it has been rotated 180° around the axis of rotation?



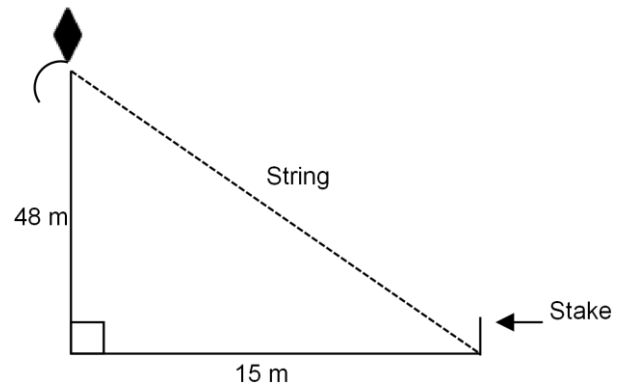
30. Which two regular polygons can be used to create a tessellation?

- A) Octagon and Hexagon
 B) Octagon and Square
 C) Pentagon and Hexagon
 D) Pentagon and Octagon

Regular Polygon	Interior Angle Measurement
Square	90
Pentagon	108
Hexagon	120
Octagon	135

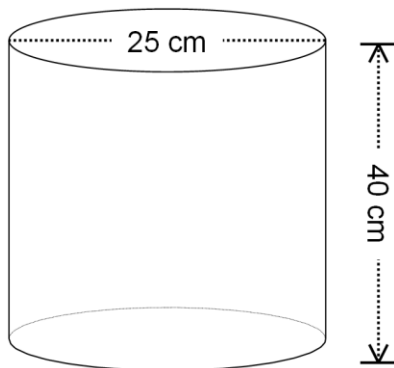
Section B : **Constructed Response: Answers are to be done in the spaces provided.**
Show all necessary workings.

5. The string of a kite is tied to a stake in the ground. How long is the string? Round your answer to 1 decimal place. [2 Marks]

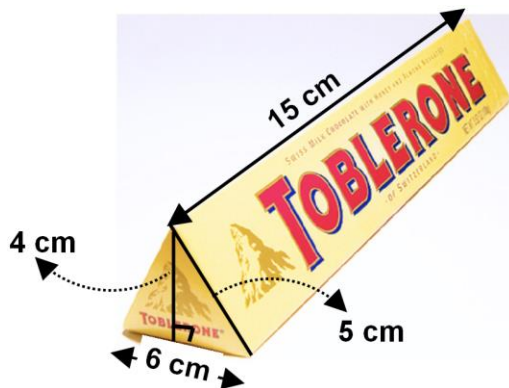


6. Evaluate: $1\frac{5}{6} - \frac{1}{4} \div \frac{2}{3}$ [2 Marks]

7. What is the volume of a cylinder that has a diameter of 25 cm and a height of 40 cm?
[2 Marks]



8. Find the surface area of this box.
[2 Marks]



9. A) An item has a sale price of \$50. This is 80% of the original price. What is the original price? [2 Marks]

B) Calculate the tax, in dollars, paid on an \$80 item if the sales tax is 13%? [1 Mark]

10. The town of Bigville held a vote to build a new baseball field. The results are found in the table. [3 Marks]

Age Group	Total Number of Votes	Results	Total Number of Yes Votes
Seniors	10000	1:3 (YES : NO)	
Non-Seniors	40000	40% NO	

What was the total number of YES votes?

11. The equation of a linear relation is $y = 4x - 1$.

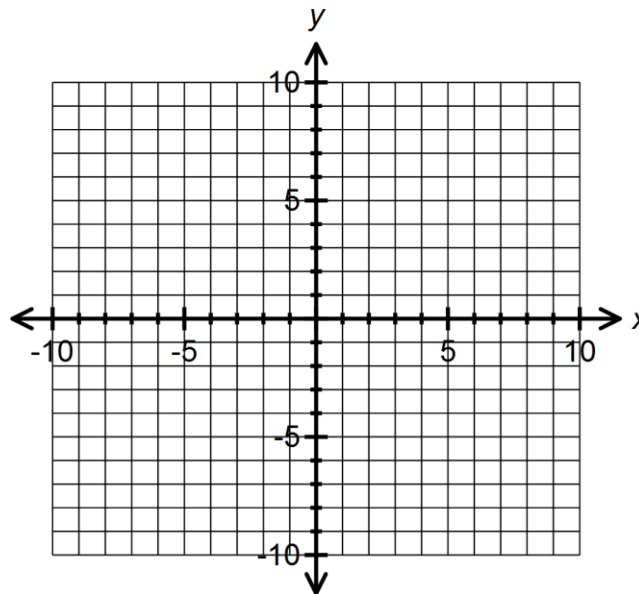
A) Complete the table of values for the relation.

[1 Mark]

x	y
-2	
0	
2	

B) Graph the data from the table in part A on the grid below.

[1 Mark]



12. Sandwiches are available for purchase by choosing one item from each column on the menu board.

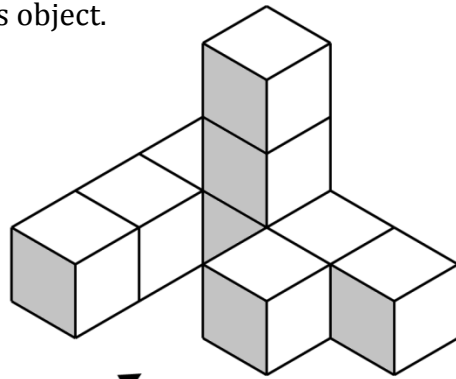
<i>BREAD</i>	<i>MEAT</i>	<i>DRESSING</i>
<i>12-GRAIN</i>	<i>HAM</i>	<i>MUSTARD</i>
<i>WHITE</i>	<i>TURKEY</i>	<i>MAYO</i>
	<i>BEEF</i>	

What is the probability that the person in front of you ordering a sandwich is going to get one on white bread with mustard and **NOT** ham?

[2 Marks]

13. Draw the front and top views of this object.

[2 Marks]



Front

