

LSB

* **REVISED** ANSWER KEY

Grade 8 Mathematics

June 2013

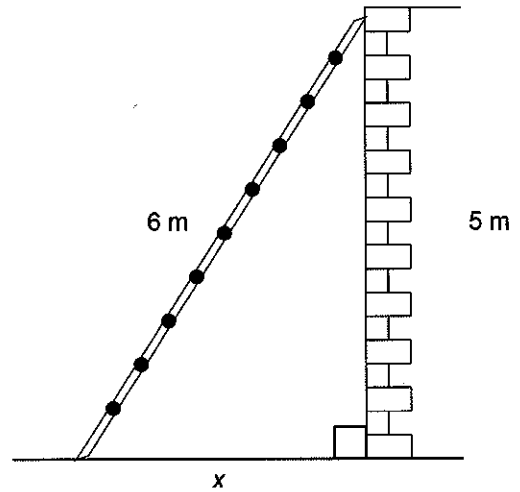
Section A: Non-Calculator

1.	D
2.	A
3.	B
4.	D
5.	B

Selected Response:	/5 Marks
Constructed Response:	/10 Marks
Total:	/15 Marks

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

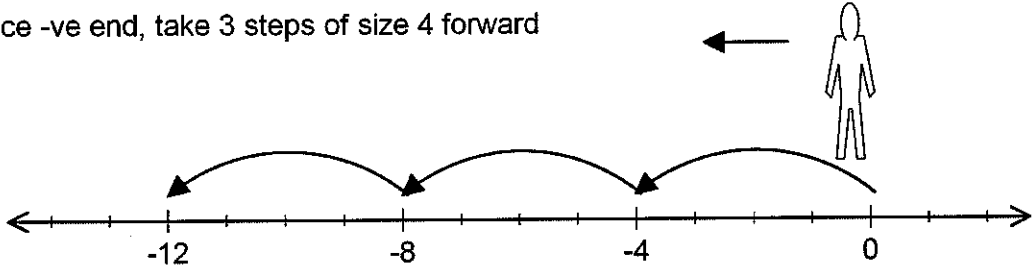
1. A 6m ladder rests against the top of a 5m wall. How far is the ladder from the wall? [3 Marks]



Marks		
	$A^2 + B^2 = C^2$	
	$5^2 + x^2 = 6^2$	
	$25 + x^2 = 36$	
	$x^2 = 36 - 25$	
	$x^2 = 11$	
	$x = \sqrt{11} \text{ m}$	

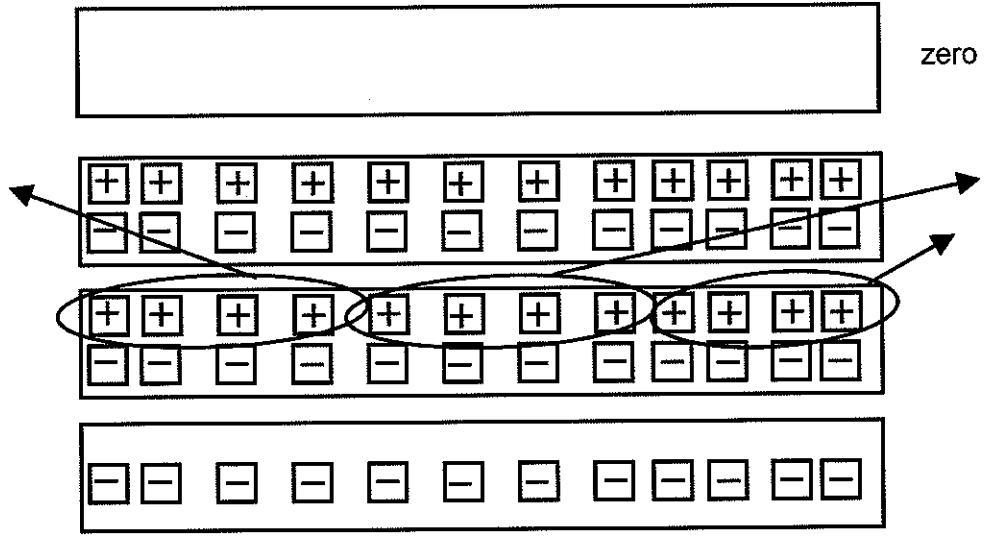
2. Use a model of your choice (i.e. counters, number line, etc.) to determine the value of $(-3) \times (+4)$ [2 Marks]

Face -ve end, take 3 steps of size 4 forward



$(-3) \times (+4) = (-12)$

OR Since 1st number is -ve, "remove" 3 sets of +4. Start with "zero", and put in 12 "zero pairs". Then you can "remove" the 3 sets of +4 leaving -12.



3. There are $3\frac{1}{2}$ busloads of tourists visiting Gros Morne for a boat ride. Each bus holds 20 tourists but the boat can take only 9 tourists. What is the minimum (least) number of boat trips required in order for all tourists to take a ride? [3 Marks]

Marks	$3\frac{1}{2} \times 20 = 70 \quad \text{or} \quad \frac{7}{2} \times 20 = \frac{140}{2} = 70$ $70 \div 9 = 7 \text{ R } 7; \text{ Thus, at least 8 trips are required.}$
-------	---

4. Solve for p : $\frac{p}{3} + 4 = -1$ [2 Marks]

Marks	$\frac{p}{3} + 4 = -1$ $\frac{p}{3} + 4 - 4 = -1 - 4$ $\frac{p}{3} = -5$ $p = -15$
-------	--

LSB
ANSWER KEY
Grade 8 Mathematics
June 2013

Section B: Calculator

6.	C
7.	C
8.	C
9.	B
10.	D

11.	A
12.	B
13.	C
14.	D
15.	D

16.	A
17.	A
18.	A
19.	B
20.	A

21.	D
22.	D
23.	B
24.	A
25.	A

26.	C
27.	B
28.	C
29.	C
30.	B

Teacher use only			
Selected Response:		/25 Marks	
Constructed Response:		/20 Marks	
Total:		/45 Marks	
Section A	Section B	Exam Total	Percentage
/15	/45	/60	/100
Section B : <u>Constructed Response: Answers are to be done in the spaces provided.</u> <u>Show all necessary workings.</u>			

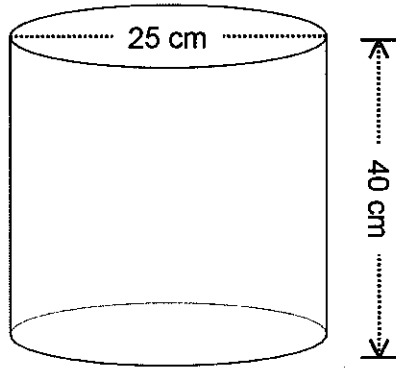
5. The string of a kite is tied to a stake in the ground. How long is the string? Round your answer to 1 decimal place. [2 Marks]

Marks	$c^2 = a^2 + b^2$ $c^2 = 48^2 + 15^2$ $c^2 = 48^2 + 15^2$ $c^2 = 2304 + 225$ $c^2 = 2529$ $c = 50.3$	
-------	--	--

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

Marks	$1\frac{5}{6} - \frac{1}{4} \div \frac{2}{3}$ $\frac{11}{6} - \frac{1}{4} \times \frac{3}{2}$ $\frac{11}{6} - \frac{3}{8}$ $\frac{88}{48} - \frac{18}{48}$ $\frac{70}{48} = \frac{35}{24}$
-------	--

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

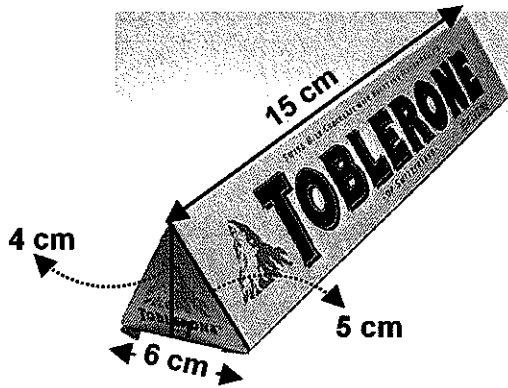


[2 Marks]

Marks	$V = \text{area base} \times \text{height}$ $= \pi r^2 \times h$ $= 3.14 \times (12.5)^2 \times 40$ $= 3.14 \times 156.25 \times 40$ $= 19625 \text{ cm}^3$
-------	---

8. Find the surface area of this box.

[2 Marks]



Marks	$\text{Surface Area} = (6 \times 15) + 2(5 \times 15) + 2\left(\frac{1}{2} \times 6 \times 4\right)$ $= 90 + 2(75) + 2(12)$ $= 90 + 150 + 24$ $= 264 \text{ cm}^2$
-------	--

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

<u>Marks</u>	<u>Solution 1</u> $50 = 0.80p$ $\frac{50}{0.80} = p$ \$62.50 = original price	<u>Marks</u>	<u>Solution 2</u> $\frac{50}{x} = \frac{80}{100}$ $80x = 5000$ $x = \frac{5000}{80}$ $x = \$62.50$
--------------	---	--------------	--

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

<u>Marks</u>	<u>Solution 1</u> $(80)(0.13) = 10.40$
--------------	---

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)	2500
Non-Seniors	40000	40% NO	24 000

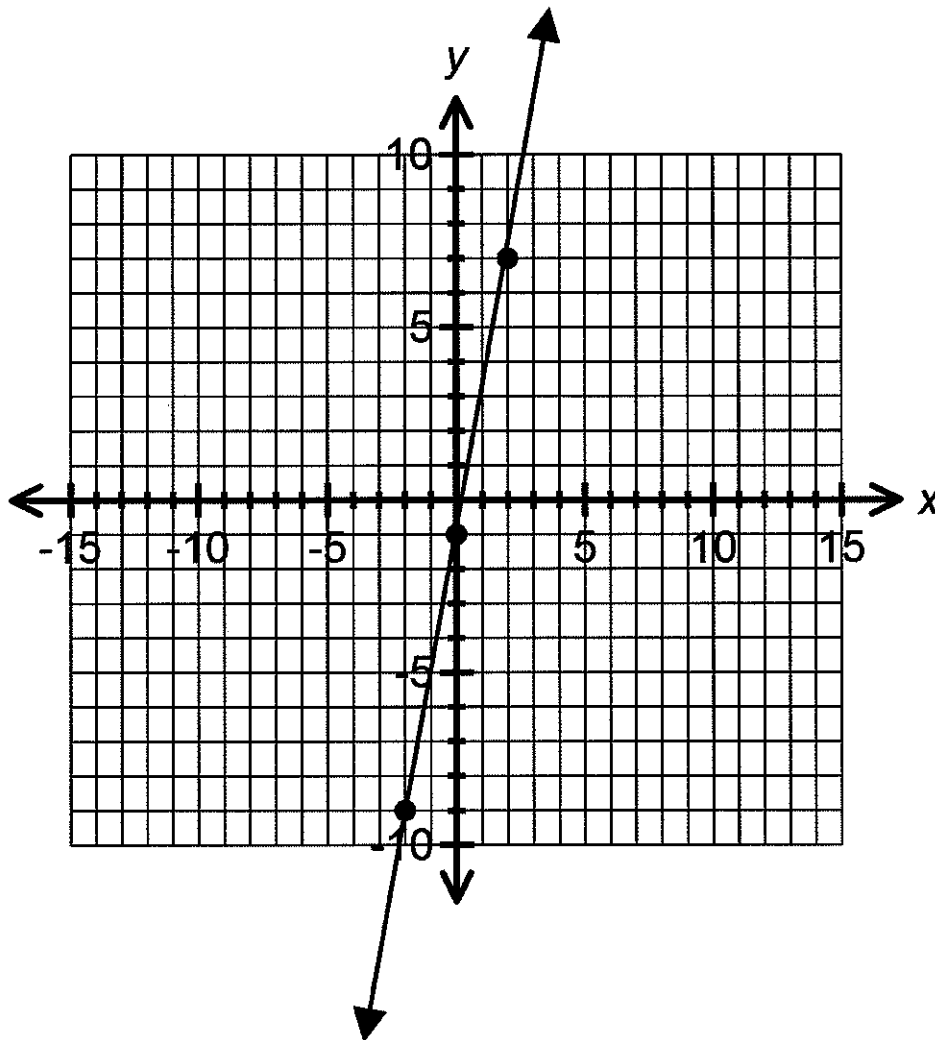
What was the total number of YES votes? Total YES votes are 26 500.

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	-9
0	-1
2	7

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.

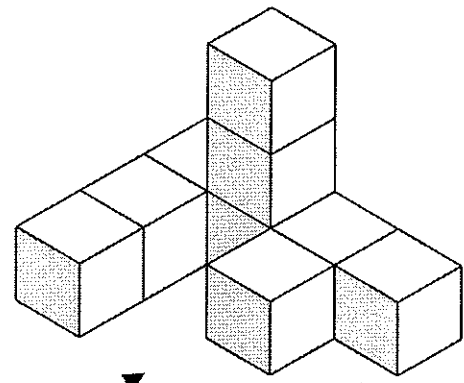
<u>Menu</u>		
BREAD	MEAT	DRESSING
12-GRAIN	HAM	MUSTARD
WHITE	TURKEY	MAYO
	BEEF	

What is the probability of ordering a sandwich that is on white bread with mustard and NOT ham? [2 Marks]

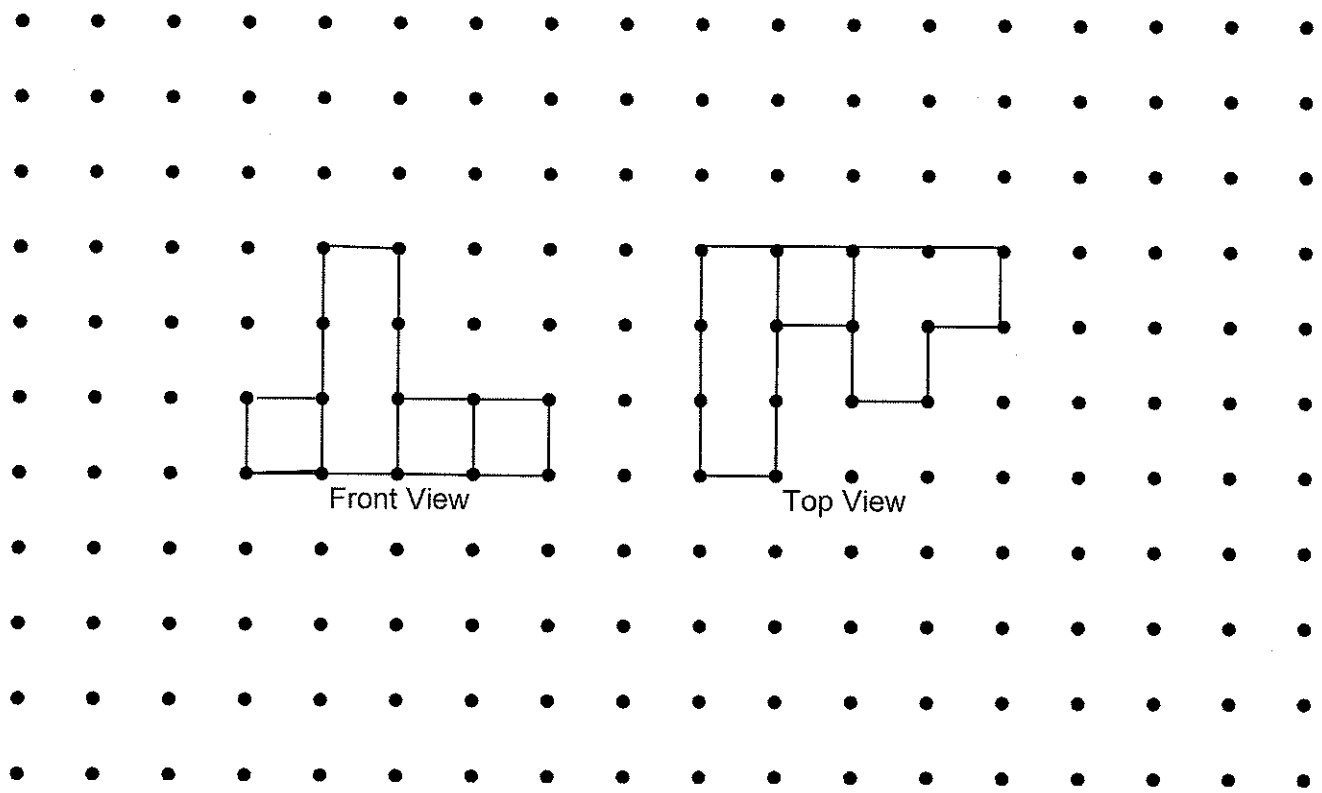
Marks	Solution 1
	$\left(\frac{1}{2}\right)\left(\frac{2}{3}\right)\left(\frac{1}{2}\right) = \frac{2}{12} = \frac{1}{6}$
OR	
Marks	Solution 2
	<div style="margin-left: 400px;"> $\frac{2}{12} = \frac{1}{6}$ </div>

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

[2 Marks]



Front



Front View

Top View