Name:



Junior Entrance Examination 2014 Second Form Entry

Mathematics

Section A: 30 minutes No calculators allowed

- Write ALL your working and answers on this paper. Show enough working on each question to make it clear how you reached your answer. <u>Underline your</u> <u>answers.</u>
- Do not spend too long working on any particular question. Do not worry if you do not manage to complete every question.
- You may work in pen or pencil.

1. Work out

(a) 2457 + 468 Answer (b) 67 × 32 Answer (c) 3916 ÷ 11 Answer (d) 24% of 240 Answer (e) $\frac{6}{7} + \frac{2}{5}$ Answer (f) $4\frac{1}{2} \div 1\frac{2}{3}$

- 2. Calculate each of the following
 - (a) $5 \times (-4)$

Answer

(b) $((5-8) \times 3) + 2$

Answer

(c) 1 - (1 - (1 - 1))

- 3. Continue the following patterns, filling in the next two terms for each.
 - (a) 34, 37, 40, 43,,
 - (b) 28.5, 26, 23.5, 21,,
 - (c) 6, 3, 2, 3, 6,,
 - (d) 0, 7, 26, 63,,
 - (e) $x, 2x, 4x, 8x, \ldots, \ldots$

4.	If $x = 3$, $y = -4$ and $z = -2$, find the value of	
	(a) $x + y + z$	
	(b) <i>xy</i>	Answer
	(c) $3y^2$	Answer
	(d) $5yz - x^3$	Answer
~		Answer
5.	Calculate is the average (mean) of the numbers below:	

87 32 76 33 97

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Mathematics

Section B: 30 minutes Calculators allowed

- Write ALL your working and answers on this paper. Show enough working on each question to make it clear how you reached your answer. <u>Underline your</u> <u>answers.</u>
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- You may work in pen or pencil.

6. (a) What is the largest whole number that is a factor of (i.e. will divide into) 45 and 75?

Answer

(b) What is the smallest whole number that 45 and 75 will divide into?

Answer

7. (a) What is 376 minutes in hours and minutes?

Answer

(b) Change 8.4 hours into minutes.

8. (a) I think of a number, then subtract nine. The result is seventeen. What was the original number?

(b) I think of a number, multiply it by three, then subtract nine. The result is forty-five. What was the original number?

Answer

(c) I think of a number, double it, then add five. The result is minus thirteen. What was the original number?

Answer

9. A rectangle has two sides of length 11cm. The area of the rectangle is 176 cm². Find the perimeter of the rectangle.

- 10. Write down the missing number in each of the following
 - (a) $1400 \times ? = 70000$

Answer:

(b) $1400 \times ? = 700$

Answer:

(c) $1400 \div ? = 7$

Answer:

11. (a) Calculate $13 \times 98 + 13 \times 2$.

Answer:

(b) Calculate $2684 \times 345 + 2684 \times 541 + 1342 \times 228$.