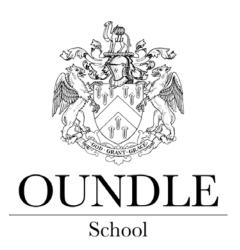
Name:			



2015 Junior Entrance Examination Second Form Entry

Mathematics

Time Allowed: 1 hour

No calculators allowed

Instructions

- Attempt all the questions
- All working and answers must be shown on this paper. Marks will be given for demonstrating your method
- Do not spend too long working on any particular question and do not worry if you do not manage to complete every question.
- You may work in pen or pencil.

1.	Work out (a) 3657 + 878	
	(b) 57 × 42	Answer
	(c) 2002 ÷ 13	Answer
	(d) 37% of 340	Answer
	(e) $\frac{4}{9} + \frac{3}{7}$	Answer

(f) $2\frac{1}{3} \div 2\frac{3}{7}$

Answer

Answer

- 2. Calculate each of the following
 - (a) -6×-8

Answer

(b) $(2-6\times3)+2$

Answer

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

Answer

- 3. Continue the following patterns, filling in the next two terms for each.
 - (a) 4, 7, 10, 13,
 - (b) 8.5, 6, 3.5, 1,
 - (c) -15, -3, 9, 21, 33,,
 - (d) 0, 7, 26, 57,,
 - (e) x, 2x, 4x, 8x,
 - (f) $x, \frac{x^2}{2}, \frac{x^3}{4}, \frac{x^4}{8}, \frac{x^5}{16}, \dots$

4.	If $x = 7$, $y = -5$ and $z = -4$, find the value of	
	(a) $x+y+z$	
	Answ (b) xy	wer
	Answ (c) $4y^2$	wer
	Answ (d) $6yz - x^3$	wer
	Ansv	wer
5.	Calculate the average (mean) of the numbers below:	
	87 32 76 33 97 17	
	Ansv	wer

0.	(a)	what is the largest whole number that is a factor of (i.e. will	divide into) /8 and 11/?
	(b)	What is the smallest whole number that 78 and 117 will divi	Answer
7.	(a)	What is 427 minutes in hours and minutes?	Answer
	(b)	Change 12.8 hours into minutes.	Answer
			Answer

8.	(a)	I think of a number, then subtract ten. The result is thirty-sev. What was the original number?	ven.
			Answer
	(b)	I think of a number, multiply it by seven, then subtract nine. What was the original number?	The result is minus two.
			Answer
	(c)	I think of a number, double it, then add five. The result is eig What was the original number?	ght.
			Answer
9.		lengths of two sides of an isosceles triangle are 13cm and 5cm and the perimeter of the triangle, explaining carefully why there	
			Answers

10.	Wri	rite down the missing number in each of the following	
	(a)	$2700 \times ? = 81000$	
		Answer	:
	(b)	$2.7 \times ? = 81$	
		Answe	r
	(c)) 8.1 ÷ ? = 27	
		Answer	~
11.	(a)) Calculate $178 \times 43 + 22 \times 43$ using an efficient method. S	how working.
		Answe	r:
	(b)	Calculate $267 \times 345 - 170 \times 345 + 3 \times 345$ using an efficience	ent method. Show working.
	(-)	,	6
			_
		Answer	r:

The exam is finished. This page is intentionally left blank.