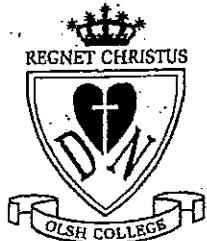


**OUR LADY OF THE SACRED HEART COLLEGE
KENSINGTON
2011**

Year 7 Mathematics Assessment Task 1



STUDENT - NAME / NUMBER.....

MATHEMATICS TEACHER _____

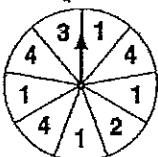
Time allowed: 45 mins

Assessed Outcomes

- NS3.1 Orders reads and writes numbers of any size
- NS3.2 Selects appropriate strategies for addition and subtraction involving two, three and four digit numbers
- NS3.3 Selects and applies appropriate strategies for multiplication and division.
- MS3.5 Uses twenty four hour time and am and pm notation in real life situations and constructs timelines
- NS4.1 Recognises the properties of special groups of whole numbers and applies a range of strategies to aid computation
- MS4.3 Performs calculations of time that involve mixed units

Instructions:

- There are two sections:
 - **Section I-** Total Marks (10)
Attempt Questions Q.1-10
 - **Section II-** Total Marks(50)
Attempt Questions Q.11-25
- Calculators may be used.
- Show all working on the paper.
- Good luck!

	SECTION A – Non-Calculator Section Answer the following questions on this question sheet (1 mark each)	
	QUESTIONS	ANSWERS
1	<p>Another way of writing 5^3 is :</p> <p>(A) $5 + 5 + 5$ (B) $5 \times 5 \times 5$ (C) 5×5 (D) $5 - 5 - 5$</p>	
2	<p>This spinner is used in a board game.</p>  <p>Sanjay spins the arrow. On which number is the arrow most likely to stop?</p> <p style="text-align: center;">1 2 3 4</p> <p style="text-align: center;"><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	
3	<p>Anne wants to find the answer to $1999 + 1476$. Which of these shows a way to get the same answer?</p> <p><input type="radio"/> 2000 + 1477 <input type="radio"/> 2000 + 1475 <input type="radio"/> 2005 + 1400 <input type="radio"/> 2005 + 1500</p>	
4	<p>Which number is greater than 0.7?</p> <p>(A) 0.1 (B) 0.006 (C) 0.07 (D) 0.73</p>	
5	<p>Jenny is exactly 3 years old. Her brother Ken is exactly 17 months old. How many months older than Ken is Jenny?</p> <p style="text-align: center;">13 14 19 21</p> <p style="text-align: center;"><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	
6	<p>$37.9 \times 10 =$</p> <p style="text-align: center;">3790 3709 37.90 379</p> <p style="text-align: center;"><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	

7 The picture shows a stone head.

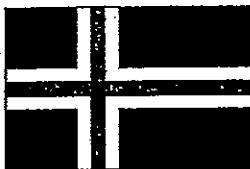


The picture is 3 cm high. The actual head is 60 cm high.

What scale is used in the picture?

- 3 cm represents 20 cm
- 6 cm represents 30 cm
- 1 cm represents 2 cm
- 1 cm represents 20 cm

8

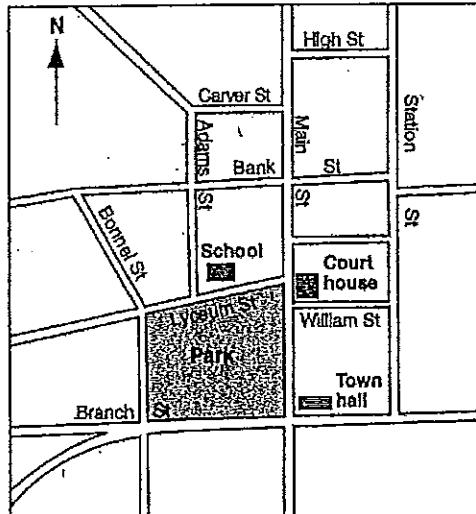


How many lines of symmetry does the design on this flag have?

- 4 3 2 1
-

9

Jill lives in a street that runs directly north-south.
Her house is north of the park and west of the school.



What street does Jill live in?

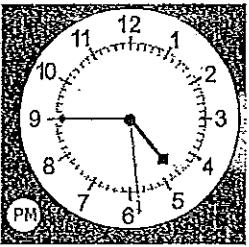
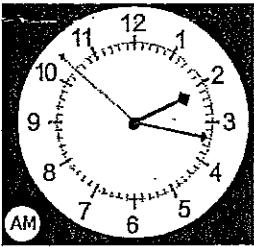
- Adams St Bonnel St Station St Main St
-

10

A set of traffic lights is red for half the time, orange for $\frac{1}{10}$ of the time and green for the rest of the time.

For what fraction of the time is the set of traffic lights green?

- $\frac{1}{3}$ $\frac{2}{5}$ $\frac{6}{10}$ $\frac{10}{12}$
-

	QUESTIONS	ANSWERS	Mks
11	(i) Write all the odd numbers greater than 20 but less than 30 (ii) Which is the only square number between 20 and 30	(i) _____ (ii) _____	1 1
12	Write the time on these clocks in 24 hr time (i)  (ii) 	(i) _____ (ii) _____	1 1
13	Write the times shown here in digital time : (i) Quarter past 3 in the morning (ii) 20 to 7 in the evening	(i) _____ (ii) _____	1 1
14	Calculate the following : (i) $22 - \sqrt{49}$ (ii) $\frac{40 + 5}{6 + 3}$ (iii) $5^3 \times 5^2 =$ (iv) $\frac{\sqrt{100}}{\sqrt{4}}$	(i) _____ (ii) _____ (iii) _____ (iv) _____	1 1 1 1
15	(i) List the first five multiples of 9 (ii) List the first five multiples of 6 (iii) What is the Lowest Common Multiple (LCM) of 9 and 6	(i) _____, _____, _____, _____, _____ (ii) _____, _____, _____, _____, _____ (iii) _____	2 2 1

16	<p>(i) List all the factors of 24</p> <p>(ii) List all the factors of 18</p> <p>(iii) What is the Highest Common Factor (HCF) of 24 and 18</p>	<p>(i)</p> <p>(ii)</p> <p>(iii)</p>	2 2 1
17	<p>Jenny is having a birthday party this Saturday. It starts at 11:30 and finishes at 2:45 pm.</p> <p>(i) How long does the party go for?</p> <p>(ii) If Jenny was born in 1997, how old is she turning this year?</p> <p>(iii) Cathy, a guest at the party, leaves 20 minutes early and takes 43 minutes to get home. What time does Cathy arrive home?</p>	<p>(i)</p> <p>(ii)</p> <p>(iii)</p>	1 1 2
18	In the Fibonacci sequence, what is the sum of the 5 th and 7 th terms?		2
19	Complete the factor tree for 480. Write your answer as the product of prime factors.	480	3

20	<p>Perth in Western Australia is 2 hours behind Sydney.</p> <p>If I fly from Perth to Sydney, and the trip takes 5 hours and 15 minutes, what time is it in Sydney when I arrive, if I left at 7:30 am Perth time?</p>		2
21	<p>(i) What is the highest 2-digit square number?</p> <p>(ii) If a number is divisible by 5, it must end in??</p> <p>(iii) What is the 4th triangular number?</p> <p>(iv) What is the remainder when 378 is divided by 5?</p>	<p>(i)</p> <p>(ii)</p> <p>(iii)</p> <p>(iv)</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>
22	<p>Convert these time measurements (1 mark each)</p> <p>(i) 3 weeks = _____ days</p> <p>(ii) 4 hours = _____ mins</p> <p>(iii) 3½ Centuries = _____ years</p> <p>(iv) 4.7 decades = _____ years</p> <p>(v) 1440 seconds = _____ minutes</p> <p>(vi) 84 days = _____ weeks</p>		
23	<p>Calculate these time questions using your calculator (1 mark each)</p> <p>(i) $\frac{3}{4}$ hrs 40 mins + $\frac{4}{5}$ hrs 52 mins</p> <p>(ii) $\frac{1}{2}$ hrs 17 mins - 0 hrs 55 mins</p> <p>(iii) $\frac{10}{3}$ hrs 38 mins 43 sec + $\frac{9}{4}$ hrs 24 mins 59 sec</p>	<hr/> <hr/> <hr/>	

2012																															
24	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S			
JANUARY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
FEBRUARY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
MARCH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
APRIL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
MAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
JUNE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
AUGUST	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
SEPTEMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
OCTOBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
NOVEMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
DECEMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	

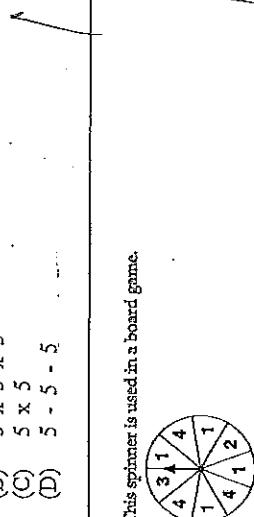
25

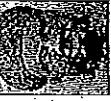
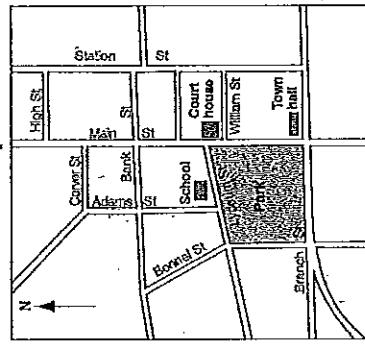
Stations	am	am	am	am	am	am	am
Bondi Junction	108	—	11.18	11.28	11.38	11.48	11.58
Edgendiff	111	—	11.21	11.31	11.41	11.51	12.01
Kings Cross	114	—	11.24	11.34	11.44	11.54	12.04
Martin Place	117	—	11.27	11.37	11.47	11.57	12.07
Town Hall	119	—	11.29	11.39	11.49	11.59	12.09
Central	122	—	11.32	11.42	11.52	12.02	12.12
Redfern	124	—	11.34	11.44	11.54	12.04	12.14
Sydenham	130	—	11.40	11.50	12.00	12.10	12.20
Tempe	—	—	—	11.52	—	—	12.22
Wool Creek	133	—	11.40	11.45	11.54	12.03	12.13
Arndiffe	—	—	—	11.56	—	—	12.26
Banksia	—	—	—	11.58	—	—	12.28
Rockdale	137	—	11.47	12.00	12.07	12.17	12.30
Kogarah	139	—	11.49	12.02	12.09	12.19	12.32

This is a copy of
the daily train
timetable between
Bondi Junction
Station and
Kogarah Station.

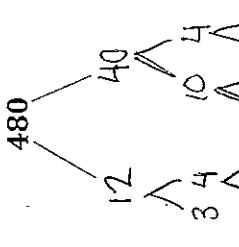
Answer the following questions using information from the timetable.

- | | |
|---|-------|
| (i) What time will the 11:18 am train from Bondi Junction arrive at Sydenham station? | (i) |
| (ii) If I have a meeting at Kogarah at 12:30 pm, what is the latest train I can catch from Central to be at my meeting on time? | (ii) |
| (iii) If I arrive at Redfern station at 11:50 am, how long do I have to wait to catch the next available train? | (iii) |

SECTION A – Non-Calculator Section	
QUESTIONS	
1	Another way of writing 5^3 is: (A) $5 + 5 + 5$ (B) $5 \times 5 \times 5$ (C) 5×5 (D) $5 - 5 - 5$ 
2	This spinner is used in a board game. 
3	Sunjay spins the arrow. On which number is the arrow most likely to stop? 1 2 3 4 <input checked="" type="radio"/> 0 0 0 0
4	Anne wants to find the answer to $1999 + 1476$. Which of these shows a way to get the same answer? <input type="radio"/> 2000 + 1477 <input checked="" type="radio"/> 2000 + 1475 <input type="radio"/> 2005 + 1400 <input type="radio"/> 2005 + 1500
5	Jenny is exactly 3 years old. Her brother Ken is exactly 17 months old. How many months older than Ken is Jenny? 13 14 19 21 <input type="radio"/> 0 0 0 0
6	$37.9 \times 10 =$ 3790 3709 37.90 379 <input type="radio"/> 0 0 0 0

7	The picture shows a stone head. 
	1 cm represents 20cm
8	This picture is 3 cm high. The actual head is 60 cm high. What scale is used in the picture? <input type="radio"/> 3 cm represents 20 cm <input type="radio"/> 6 cm represents 30 cm <input checked="" type="radio"/> 1 cm represents 2 cm <input type="radio"/> 1 cm represents 20 cm
9	Jill lives in a street that runs directly north-south. Her house is north of the park and west of the school. 
10	What street does Jill live in? Adams St Bonnel St Station St Main St <input type="radio"/> 0 0 0 0

	QUESTIONS	ANSWERS	Mks
1.1	(i) Write all the odd numbers greater than 20 but less than 30 (ii) Which is the only square number between 20 and 30	(i) 21, 23, 25, 27, 29 (ii) 224 25 20	1
1.2	Write the time on these clocks in 24 hr time	(i) 16:45 (ii) 217 1	1
1.3	Write the times shown here in digital time:	(i) Quarter past 3 in the morning (ii) 20 to 7 in the evening	
1.4	Calculate the following:	(i) $22 - \sqrt{49}$ (ii) $\frac{40+5}{6+3}$ (iii) $5^3 \times 5^2 =$ (iv) $\frac{\sqrt{100}}{\sqrt{4}}$	
1.5	(i) List the first five multiples of 9 (ii) List the first five multiples of 6 (iii) What is the Lowest Common Multiple (LCM) of 9 and 6	(i) 9, 18, 27, 36, 45 (ii) 6 , 12 , 18 , 24 , 30 (iii) 18	1

16	(i) List all the factors of 24 (ii) List all the factors of 18 (iii) What is the Highest Common Factor (HCF) of 24 and 18	(i) 24, 1, 2, 12, 6, 24, 3, 8 (ii) 18, 1, 9, 2, 6, 3, 2 (iii) 6	2
17	Jenny is having a birthday party this Saturday. It starts at 11:30 and finishes at 2:45 pm. (i) How long does the party go for? (ii) If Jenny was born in 1997, how old is she turning this year? (iii) Cathy, a guest at the party, leaves 20 minutes early and takes 43 minutes to get home. What time does Cathy arrive home?	(i) 3 hrs 15 mins (ii) 14 (iii) 3:08 pm	1
18	In the Fibonacci sequence, what is the sum of the 5 th and 7 th terms?	1, 1, 2, 3, 5, 8, 13	2
19	Complete the factor tree for 480. Write your answer as the product of prime factors.	480  3 12 40 3 4 2 2 10 4 2 2	3

20	Perth in Western Australia is 2 hours behind Sydney. If I fly from Perth to Sydney, and the trip takes 5 hours and 15 minutes, what time is it in Sydney when I arrive, if I left at 7:30 am Perth time?	2.45pm 2	2
21	(i) What is the highest 2-digit square number? (ii) If a number is divisible by 5, it must end in?? (iii) What is the 4 th triangular number? (iv) What is the remainder when 378 is divided by 5?	(i) 81 (ii) 5 or 0 (iii) 10 (iv) 75 or 3	1
22	Convert these time measurements (1 mark each)		
	(i) 3 weeks = <u>21</u> days / (ii) 4 hours = <u>240</u> mins / (iii) 3½ Centuries = <u>350</u> years / (iv) 4.7 decades = <u>47</u> years / (v) 1440 seconds = <u>24</u> minutes / (vi) 84 days = <u>12</u> weeks /		

23	Calculate these time questions using your calculator (1 mark each)		
	(i) 3 hrs 40 mins + 4 hrs 52 mins <u>8 hrs 32 mins</u>	(ii) <u>7 hrs 17 mins -</u> 0 hrs 55 mins <u>6 hrs 22 mins</u>	(iii) <u>10 hrs 38 mins + 9 hrs 24 mins</u> 59 sec <u>20 hrs 5 mins 42 sec</u>

24	2012		
	S M T W T F S	S M T W T F S	S M T W T F S
JANUARY	1 2 3 4 5 6 7	8 9 10 11 12 13 14	15 16 17 18 19 20 21
2 3 4 5 6 7 8	9 10 11 12 13 14 15	16 17 18 19 20 21 22	23 24 25 26 27 28 29
3 4 5 6 7 8 9	10 11 12 13 14 15 16	17 18 19 20 21 22 23	24 25 26 27 28 29 30
4 5 6 7 8 9 10	11 12 13 14 15 16 17	18 19 20 21 22 23 24	25 26 27 28 29 30 31
5 6 7 8 9 10 11	12 13 14 15 16 17 18	19 20 21 22 23 24 25	26 27 28 29 30 31
6 7 8 9 10 11 12	13 14 15 16 17 18 19	20 21 22 23 24 25 26	27 28 29 30 31
7 8 9 10 11 12 13	14 15 16 17 18 19 20	21 22 23 24 25 26 27	28 29 30 31
8 9 10 11 12 13 14	15 16 17 18 19 20 21	22 23 24 25 26 27 28	29 30 31
9 10 11 12 13 14 15	16 17 18 19 20 21 22	23 24 25 26 27 28 29	30 31
10 11 12 13 14 15 16	17 18 19 20 21 22 23	24 25 26 27 28 29 30	
11 12 13 14 15 16 17	18 19 20 21 22 23 24	25 26 27 28 29 30 31	
12 13 14 15 16 17 18	19 20 21 22 23 24 25	26 27 28 29 30 31	
13 14 15 16 17 18 19	20 21 22 23 24 25 26	27 28 29 30 31	
14 15 16 17 18 19 20	21 22 23 24 25 26 27	28 29 30 31	
15 16 17 18 19 20 21	22 23 24 25 26 27 28	29 30 31	
16 17 18 19 20 21 22	23 24 25 26 27 28 29	30 31	
17 18 19 20 21 22 23	24 25 26 27 28 29 30	31	
18 19 20 21 22 23 24	25 26 27 28 29 30 31		
19 20 21 22 23 24 25	26 27 28 29 30 31		
20 21 22 23 24 25 26	27 28 29 30 31		
21 22 23 24 25 26 27	28 29 30 31		
22 23 24 25 26 27 28	29 30 31		
23 24 25 26 27 28 29	30 31		
24 25 26 27 28 29 30	31		
25	2013		
	S M T W T F S	S M T W T F S	S M T W T F S
JANUARY	1 2 3 4 5 6 7	8 9 10 11 12 13 14	15 16 17 18 19 20 21
2 3 4 5 6 7 8	9 10 11 12 13 14 15	16 17 18 19 20 21 22	23 24 25 26 27 28 29
3 4 5 6 7 8 9	10 11 12 13 14 15 16	17 18 19 20 21 22 23	24 25 26 27 28 29 30
4 5 6 7 8 9 10	11 12 13 14 15 16 17	18 19 20 21 22 23 24	25 26 27 28 29 30 31
5 6 7 8 9 10 11	12 13 14 15 16 17 18	19 20 21 22 23 24 25	26 27 28 29 30 31
6 7 8 9 10 11 12	13 14 15 16 17 18 19	20 21 22 23 24 25 26	27 28 29 30 31
7 8 9 10 11 12 13	14 15 16 17 18 19 20	21 22 23 24 25 26 27	28 29 30 31
8 9 10 11 12 13 14	15 16 17 18 19 20 21	22 23 24 25 26 27 28	29 30 31
9 10 11 12 13 14 15	16 17 18 19 20 21 22	23 24 25 26 27 28 29	30 31
10 11 12 13 14 15 16	17 18 19 20 21 22 23	24 25 26 27 28 29 30	
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12 13 14 15 16 17 18	19 20 21 22 23 24 25	26 27 28 29 30 31	
13 14 15 16 17 18 19	20 21 22 23 24 25 26	27 28 29 30 31	
14 15 16 17 18 19 20	21 22 23 24 25 26 27	28 29 30 31	
15 16 17 18 19 20 21	22 23 24 25 26 27 28	29 30 31	
16 17 18 19 20 21 22	23 24 25 26 27 28 29	30 31	
17 18 19 20 21 22 23	24 25 26 27 28 29 30		
18 19 20 21 22 23 24	25 26 27 28 29 30 31		
19 20 21 22 23 24 25			

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