QUESTION ONE

Three ordinary dice are thrown. The sum of the numbers showing is 10. There are 6 different combinations that add up to 10. List the one result that uses just prime numbers.

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION TWO

What is 4500% of $5?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION THREE

A date can be written 30 / 4 / 2008. The sum of its digits is 17. On what date this century does this total reach its highest value?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION FOUR

How many zeros are there at the end of the product:

$8000 \times 162 \times 185 \times 375 \times 625 \times 888$

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION FIVE

If each edge of a square is increased by 20% , what is the percentage increase in its area?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION SIX

How many cubic millimeters in 2.5 cubic metres?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION SEVEN

The sum of Robert's and his older sister Talia's ages is 28. If the difference between their ages is one third of Robert's age. What are their ages?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION EIGHT

What day and time is half way between 9am on Monday and 5pm on Thursday?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION NINE

A car and trailer costs $10 000. If the car costs $8 650 more than the trailer. How much does the trailer cost?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION TEN

What fraction is exactly half way between $5\frac{3}{7}$ and $8\frac{5}{9}$?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION ELEVEN

One of the competitions at a gala day was to guess the length, in centimeters, of a piece of string placed in a jar. The four closest guesses were: 165cm, 170cm, 181cm, and 183cm. One of these guesses was 1cm out, another 6cm out, another 10cm out, and the other 12cm out. What was the true length?

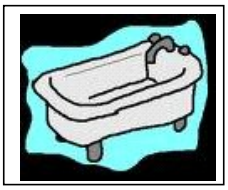
ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION TWELVE

A straight fence 55 metres long is to be erected with a post every 5 metres.
If the end posts take 30 minutes to put in and each of the other posts take 25 minutes to put in, how long does it take to put in all the posts?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION THIRTEEN



A bath will fill in 20 minutes with just the hot tap turned on.
The same bath takes 12 minutes to fill with just the cold tap on.
Assuming the taps always run at the same rate how long will it take to fill the bath with both taps on?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION FOURTEEN

The numerals used to number letterboxes require different numbers of screws to attach them to the letterbox.
Numerals 0, 1, 7 and 8 require two screws and all others require three screws.
How many screws will be needed in total to attach all the numbers on letterboxes in a street containing 50 houses? (That is 1 to 50).

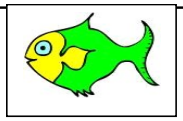
ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION FIFTEEN

In a family, the parents ages are 36 and 33, and the children's ages are 9, 7 and 4. How old will the youngest child be when the parents ages and the children's ages add up to the same total?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION SIXTEEN



A marine biologist wishes to estimate the number of fish of takeable size living in a lake. She captures 150 takeable fish, tags and releases them. The following week she catches 80 fish of takeable size, 16 have tags. Use this information to estimate the number of takeable fish in the lake.

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION SEVENTEEN

Four boys and three girls were picking up walnuts. Each girl picked up five more walnuts than each boy, and the girls together picked up the same number of nuts as the boys together. How many nuts were picked up altogether?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION EIGHTEEN

A boat capable of travelling at 10km/h in still water is hired to take an excursion up a river which is flowing at 2km/h. The trip is to leave at 8am and return at 12:30pm. The boat travels upstream, stops for 30 minutes and then returns. What is the maximum distance upstream th e boat can travel; if it is to be back at start at 12:30pm?

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION NINETEEN

The value of 12! Is the product of all the whole numbers from 1 to 12 inclusive:

i.e. $12! = 12 \times 11 \times 10 \times 9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$

Find the maximum number of times that 2 will divide into 12! exactly.

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

QUESTION TWENTY

If two henkles are worth three feniks, and three yazzas are worth five henkles, find the value of one yazza if one fenik is worth $12.

ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4	ATTEMPT 5

2008 MATHSMIND YEAR 9 QUESTIONS

Q'n	ANSWER
1	5, 3, 2 (Any order)
2	$225 (Units not required)
3	29 / 9 / 2099
4	10
5	44% (Units not required)
6	2 500 000 000 (2.5 Billion)
7	Robert 12 Talia 16 (Both required)
8	1:00am Wednesday (Time and day required)
9	$675 (Units not required)
10	$6\frac{125}{126}$ or $\frac{881}{126}$

Q'n	ANSWER
11	171cm (Units not required)
12	310 minutes (or 5hrs 10 mins)
13	7.5 or $7\frac{1}{2}$ minutes or 7 minutes 30 seconds
14	243 screws (Units not required)
15	53
16	750 fish (Units not required)
17	120 nuts (Units not required)
18	19.2km (Units required)
19	10
20	$30 (Units required)