

MathsMind 2017
Year 9

Question 1

Peter, Alan and Stephanie had 35 biscuits to share among themselves. Alan had 5 biscuits fewer than Stephanie. Peter had half as many as Stephanie. How many biscuits did Peter have?

Select the best answer, below.

- 8
- 11
- 12
- 16

Attempt 1	Attempt 2	Attempt 3	Attempt 4	Attempt 5

Question 2

A quadrilateral has 3 equal interior angles and the fourth is 5 times the sum of the other 3. How big is the largest angle?

Attempt 1	Attempt 2	Attempt 3	Attempt 4	Attempt 5

Question 3

A bag contains 3 red, 2 white, 1 blue and 5 green marbles. If you do not replace each marble once it has been selected, how many times must you reach in blindfolded, pull out a marble and be certain it is red?

Attempt 1	Attempt 2	Attempt 3	Attempt 4	Attempt 5

Question 4

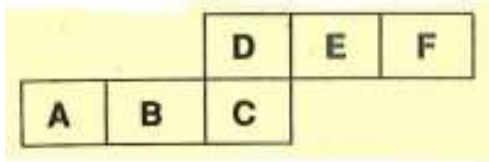
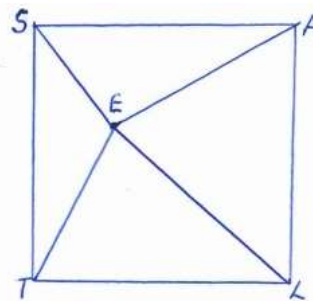
10 people in the class volunteered to be the new Healthy Eating class committee.

The committee is to consist of 4 different people only.

How many different ways can this committee be picked?

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5****Question 5**

When this pattern is folded you will get a cube. Which face will be opposite face E ?

**Attempt 1****Attempt 2****Attempt 3****Attempt 4****Attempt 5****Question 6**

The square SALT has an area of 200 m^2

The triangle LET has an area of 67 m^2

What is the area of the triangle SEA in m^2 ?

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5**

Question 7

Did you know that there is only 1 pair of different numbers for which $x^y = y^x$?

Find x and y

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5****Question 8**

The minute hand of a clock points to a certain number of minutes past 9 a.m.

Exactly half an hour ago it was 6 times as many minutes past 8 a.m.

What is the time now in a.m.?

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5****Question 9**

Calculate $2\frac{3}{8}$ % of 8400

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5**

Question 10

If I number every page in a 240 page book, how many times does the number 1 occur in total?

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5****Question 11**

In the farmyard there are chicken and sheep.
Altogether there are 20 animals and 72 feet.
How many sheep are there in the farmyard?

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5****Question 12**

2^{5028} ends in what digit ?

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5**

Question 13

A, B and C are 3 different 1 or 2 digit numbers

$$\text{If } A \div B = C$$

$$2C + 1 = B$$

$$B + C = 13$$

Find the value of A

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5****Question 14**

Granny Smith gave each of her grandchildren three red apples each, except for Jimmy who received only two.

If she had given all of her grandchildren only two apples each, there would have been eight apples left over.

How many grandchildren does Granny Smith have?

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5****Question 15**

Find the value of x

**Attempt 1****Attempt 2****Attempt 3****Attempt 4****Attempt 5**

Question 16

$$\text{If } 7 \# 5 = 15$$

$$9 \# 2 = 14$$

$$8 \# 9 = 20$$

$$2 \# 3 = 8$$

What is the value of $5 \# 4$?

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5****Question 17**

Ann Ominous made irresistible toffee apples for the school fair.
When the day came,

- she sold 3 more than $\frac{1}{2}$ of them to the 1st person she served,
- 3 more than $\frac{1}{2}$ of what was left to the 2nd person
- 3 more than $\frac{1}{2}$ what then remained to the 3rd person.

After this she had 7 toffee apples.
How many had she made for the fair?

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5****Question 18**

Hannah can peel a bucket of potatoes in 30 minutes.

Her boyfriend can peel the same sized bucket in 45 minutes.

If they work together to peel the same sized bucket of potatoes
starting at 5pm at what time will they finish peeling the potatoes?

Attempt 1**Attempt 2****Attempt 3****Attempt 4****Attempt 5**

Question 19

A father and his daughter went for a stroll along a beach one summer evening.

The length of the father's step was 0.75m and his daughter's was 0.55 m.

During the entire walk the father's left footprint was directly opposite his daughter's left footprint exactly 53 times, including the first and last footprints.

How far did they walk?

Attempt 1	Attempt 2	Attempt 3	Attempt 4	Attempt 5

Question 20

Here are four number plates

HSF 876

HFS 756

SFH 546

FSH ---

Following the pattern what is the number of the fourth number plate?

Attempt 1	Attempt 2	Attempt 3	Attempt 4	Attempt 5