

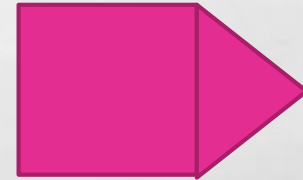
**DR BAKER'S YEAR 5 MATHS**  
**MONDAY 4<sup>TH</sup> MAY**



# WELCOME

Good Morning. The arithmetic test answers are on the next page so make sure you mark them first of all. Then I have a problem for you to think about. How many different polygons (straight sided shapes) can I make by putting together a square and any number of triangles with one side the same length as the sides of the square. For example I could do this which makes a pentagon from a square and one triangle:

What else can you make? You could send me some pictures of what you find out.



1	308
2	692
3	132
4	197
5	807
6	284
7	758
8	104
9	72
10	12
11	96
12	752
13	22
14	$\frac{8}{12}$ or $\frac{2}{3}$
15	$\frac{2}{5}$

### Arithmetic: Test 5 A

- 1) 396
- 2) 70
- 3) 9
- 4) 3650
- 5)  $\frac{2}{7}$
- 6) 26
- 7) 252
- 8) 10
- 9) 22000
- 10) 12
- 11)  $\frac{1}{3}$
- 12) 1200
- 13) 860
- 14)  $\frac{27}{11}$
- 15) 142
- 16) 623
- 17) 1764
- 18) 9928

# TASKS FOR TODAY

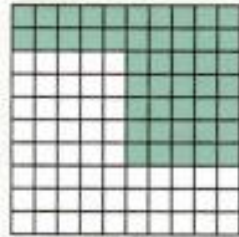
L.O. To solve fraction, decimal and percentage problems.

Today we are going to use all that we have learnt about fractions, decimals and percentages to solve problems. If you are finding the problems tricky, look back at what we have done previously on fractions, decimals and percentages and think which parts of that could help you in that particular question. Beware on set C – some of the questions require thinking about quite hard. If you normally struggle with word problems start a level lower than normal and if you are really struggling go back to the slides from last week and try the next level up on there.

## Set A

Winston's garden is made up of 100 white paving stones. He replaces some of them with grass:

- 1 What percentage of his garden is now made up of grass?
- 2 He wants to add a pond that will take up 25% of his garden. How many paving stones is this?



The ingredients to make 1 kg of fruit salad are shown on the right.

Apples	0.15 kg
Peaches	0.45 kg
Grapes	0.4 kg

What percentage of the fruit salad is made up of:

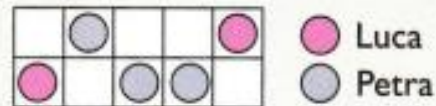
- 3 apples?
- 4 peaches?
- 5 grapes?
- 6  $\frac{60}{100}$  of the shoes in a shoe shop have laces. What percentage don't have laces?

Here are the percentages of each type of animal in the reptile house at a zoo:

- 50% lizards
- 27% snakes
- 18% tortoises
- 5% crocodiles

- 7 What fraction of the reptiles are snakes or tortoises?
- 8 What proportion of the reptiles are lizards or crocodiles? Write your answer as a decimal.
- 9 If there are 80 reptiles in total, how many are lizards?

Luca and Petra are playing a board game. The board is divided up into 10 squares and each person has their own coloured counters:



- 10 What percentage of the squares have Petra's counters on them?
- 11 Luca takes one of his counters off the board. What percentage of the squares don't have any counters on them?



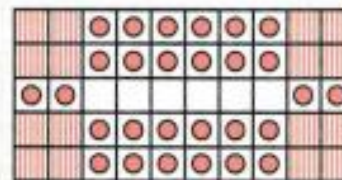
## et B

The fraction of children in Year 5 with each hair colour are shown below:

• $\frac{5}{100}$ ginger	• $\frac{15}{100}$ blonde
• $\frac{60}{100}$ brown	• $\frac{20}{100}$ black

- 1 What percentage of the children have brown hair?
  - 2 What percentage of the children have ginger or black hair?
  - 3  $\frac{1}{4}$  of the children have short hair. What percentage of the children do not have short hair?
- Terry buys a packet of 100 animal crackers.
- 4 Kim eats 35, Tom eats 20 and Terry eats the rest. What percentage of the animal crackers does Terry eat?
  - 5 Terry also buys 10 cookies and gives 3 to Gio. What proportion of the cookies did he give to Gio? Give your answer as a decimal.

The pattern below is made up of plain, dotted and striped tiles. There are 50 tiles in total.



- 6 What percentage of the tiles are striped?
- 7 What percentage of the tiles are not plain?

Another pattern is 25% green, 10% blue, 5% black, and the rest is grey.

- 8 What proportion of this pattern is grey? Give your answer as a decimal.

Carrie's music shop displays CDs in boxes of 20.

- 9 She sells 10% of the CDs in one box. How many CDs is this?
- 10 She also sells 20% of another box. How many CDs has she sold in total?
- 11 Jo threw away  $\frac{1}{10}$  of her toys and donated 35% of her toys to charity. What percentage of her toys does she have left?

Sorry I cut off the numbers – they should be 1 – 5!



Sorry I cut off the numbers – they should be 1 – 5! Hopefully you can figure out the first letter of each word.



5 A jug of lemonade is 39% full.  
What proportion of the jug is empty?  
Give your answer as a decimal.

6 Melia has 35 plants in her greenhouse.  
The table shows the percentage of each plant.

- 7 How many of the plants are lettuces?
- 8 In her garden she has 100 vegetable plants. 25% are cabbages and the rest are potatoes. How many potato plants are there?

Lettuces	60%
Tomatoes	20%
Cucumbers	20%

9 Here are the ingredients to make a milkshake:

strawberries	milk
ice cream	raspberries

10 There is 15 ml of milk in 100 ml of milkshake.  
What percentage of the milkshake is not milk?  
The milkshake is 74% fruit.  
If  $\frac{6}{50}$  of the milkshake is raspberries,  
what fraction of the milkshake is strawberries?

6 At a football match, 37% of the fans are supporting the home side and  $\frac{23}{100}$  are supporting the away side. The rest don't support either team. What percentage of the fans don't support either team?

7 A bathroom floor is made up of 20 tiles arranged in the pattern shown below.

8 What percentage of the tiles:

- 9 have a dot on them?
- 10 do not have a dot on them?
- 11 What proportion of the tiles have a cross on them? Give your answer as a decimal.



12 Lyndsey has 50 pairs of socks.  
26 pairs are spotted, 9 pairs are striped and the rest are plain.

- 13 What percentage of the socks are plain?
- 14 Lyndsey loses 2 pairs of spotted socks and buys 2 pairs of striped socks. What percentage of her socks are now striped?

# ANSWERS

## Set A

1. 45%
2. 25
3. 15%
4. 45%
5. 40%
6. 40%

7.  $\frac{45}{100} = \frac{9}{20}$

8. 0.55

9. 40

10. 30%

11. 60%

## Set B

1. 60%
2. 25%
3. 75%
4. 45%
5. 0.3
6. 32%
7. 88%
8. 0.6
9. 2
10. 6
11. 55%

## Set C

1. 0.61
2.  $\frac{6}{10} \times 35 = 21$
3. 75
4. 85%
5. 62%
6. 40%
7. 25%
8. 75%
9. 0.35
10. 30%

11. 22%





# REMEMBER:

- **Talk to someone on your network hand if you are worried about something.**
- **If nobody is listening to your worries or there is nobody to talk to, you can google Childline or call them on 08001111. Adults at Childline are used to talking to children with worries and can help you.**
- **If you feel unsafe at home or are worried that a friend is not safe, call Mrs Patchett on 07787261064.**