



ALL IN ONE PLACE BASE CAMP PERCENTAGE FRACTIONS DECIMALS ACTIVITY 1



INSTRUCTIONS

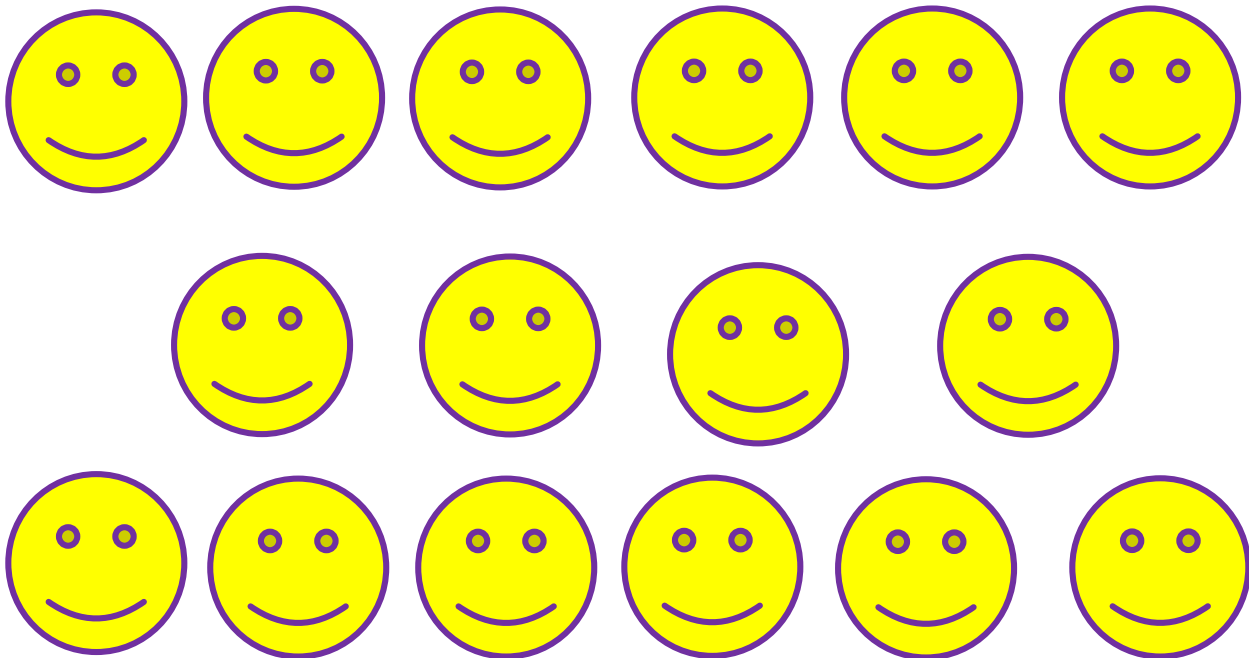
- There is no time limit for the activity – work at your own pace
- Ask a family member or friend for help if you need it
- Write answers in your Maths workbook or on the activity sheet
- Use the solution sheet to check your work
- You should not use a calculator

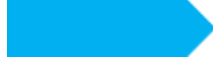
INTRODUCTION

You have already learnt about percentage, fractions and decimals in school. In this activity, you'll revise what you know and also apply your knowledge doing percentage, fraction and decimal calculations.

Before you get going on the exercises, let's get you in the mood for percentage, fractions and decimals work.

Cut out all the smiley faces on this page. How many faces are there?

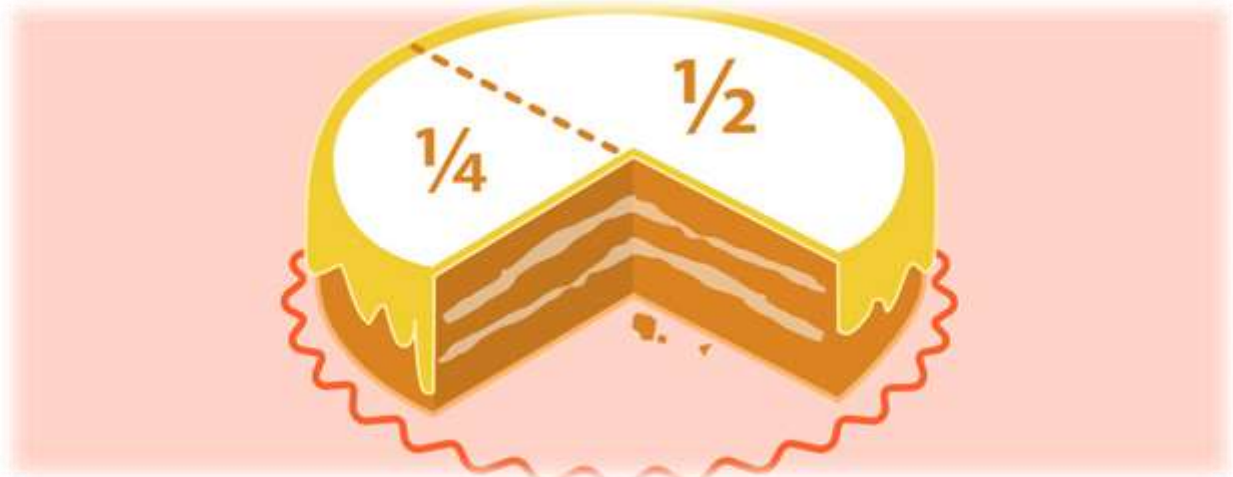




Use your smiley faces and ask a friend or family member

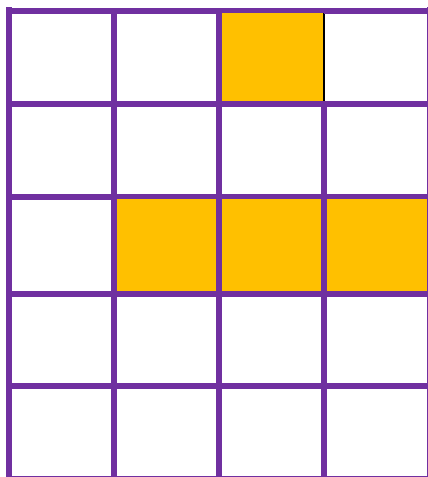
- to take three quarters of the total faces
- how many faces make up 0.125 of the total faces
- to 25% of the total faces into halves

Make sure you know what to do before putting somebody else to the test!



JUMP 1

Examine the grid and then answer the questions about percentages, fractions and decimals.



a. What fraction of the grid is shaded?

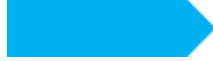
ANSWER _____

b. Write your answer above as a decimal to two places.

ANSWER _____

c. Write your answer as a percentage of the grid.

ANSWER _____



d. Make a three copies of the grid on A4 paper or draw three grids using a computer app. Use different colours and make grids showing

- 10%
- 0.4 of the total
- 100%

e. What percentage of one grid are the three grids you have made? Explain your answer.

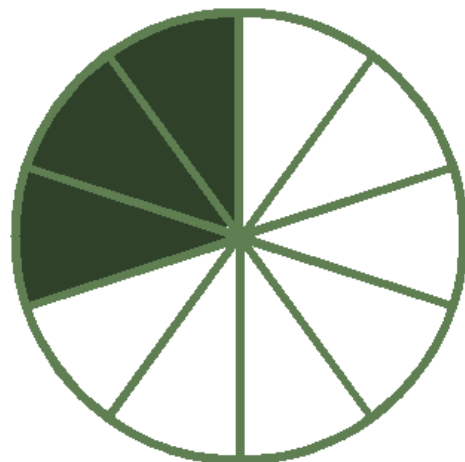
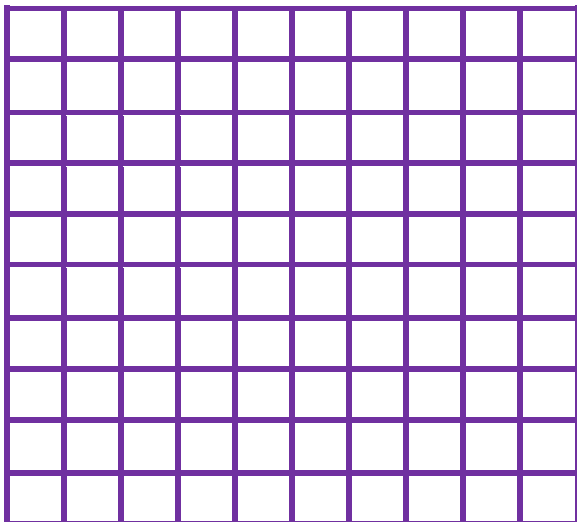
MY ANSWER AND EXPLANATION

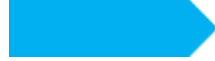


JUMP 3

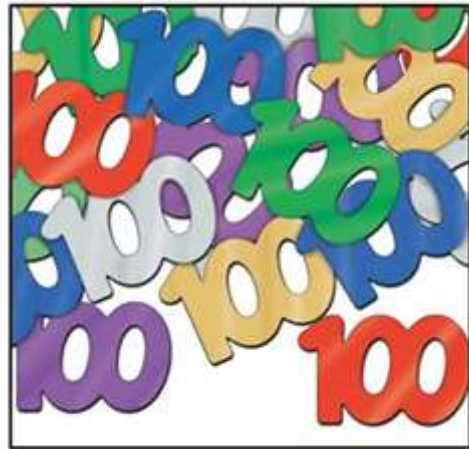
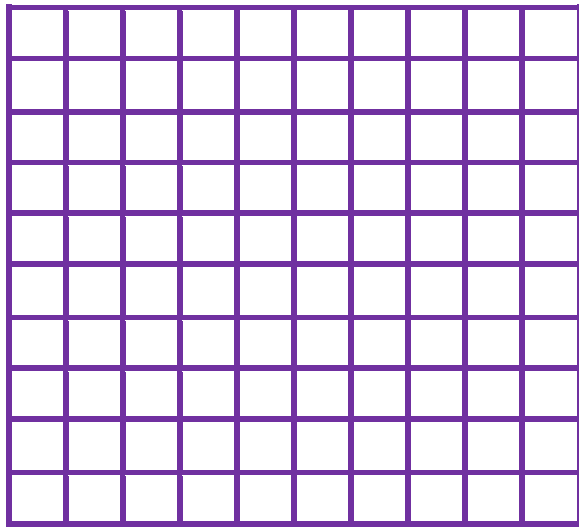
Shade squares on each grid showing

a. $2/10$ of the grid shaded





b. $17/100$ of the grid shaded



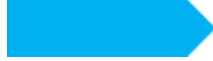
e. You want to shade squares on the same grid equal to the sum of the first 4 prime numbers. How many squares do you need to shade?

ANSWER _____

f. You've shaded the grid to show the sum of the first 4 prime numbers. What percentage of the grid is unshaded?

ANSWER _____





JUMP 4

Sudoku as people play it today was invented by a puzzle-maker from Indiana, USA in 1979.

The game first appeared in Japan in 1984 where it was given the name "Sudoku," which is '*Sūji wa dokushin ni kagiru*' in Japanese. Translated, this means, '*the digits can only be used once.*'

Examine the Sudoku puzzle and then answer the questions.

8			3		9			5
				2				
5			6		8			3
	7	5	9		3	4	6	
		1				7		
	3	8	7		4	2	5	
6			4		1			2
				9				
3			5		7			4

a. What fraction of the total area is shaded?

ANSWER _____

b. Express the number of white squares as a decimal fraction.

ANSWER _____

c. What percentage of the squares contain numbers greater than 3. Express your answer as a whole number.

ANSWER _____

d. What percentage of the numbers on the Sudoku grid are not prime? Express your answer as a whole number.

ANSWER _____





JUMP 5

Write the fractions, decimals and percentages in increasing numerical order.

0.7 2/5 72% 0.099 0.68 81% 120% 1.25

ANSWER

Two students are discussing the number 1.25 from the list.

<p>Dylan says ...</p> <p><i>'Five quarters make up 1.25.'</i></p> 	<p>Emily says ...</p> <p><i>'Maybe... but I think that 1.25 and 125% are the same amount!'</i></p> 
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Who has made a correct statement? Circle one option in the table.

Dylan	Emily	Both correct	Both incorrect
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JUMP 6

You have two thirds of £16.00 and your friend has 0.7 of £14.00.

a. Who has more money? Explain your reasoning.

ANSWER

b. What percentage of the total amount of money does your friend have? Express your answer in the simplest form.

ANSWER _____

c. You both receive £5.00 more. By how much has the amount of money you have increased? Express your answer as a decimal fraction to 2 places.

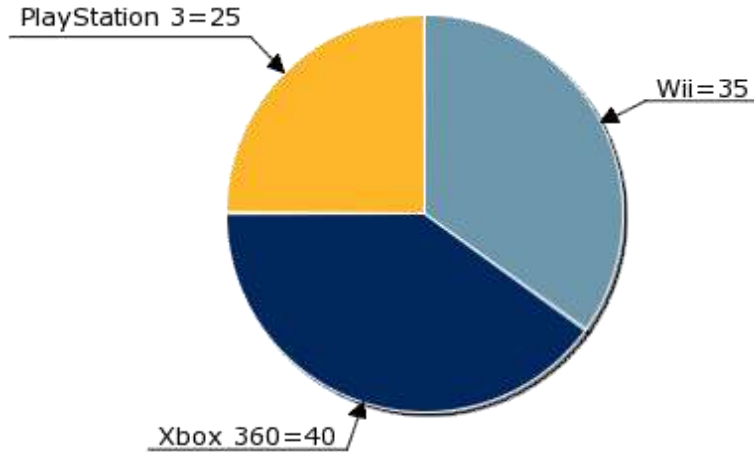
ANSWER _____





JUMP 8

The pie chart shows the number of people that use PS, Xbox and Wii game consoles.



a. Which game console is the most popular? Explain your reasoning.

ANSWER AND EXPLANATION

b. What fraction of the people like Xbox? Express your answer in the simplest form.

ANSWER _____

c. What percentage of people like PlayStation?

ANSWER _____



JUMP 11

Write one of these symbols in each pentagon to make a correct mathematical statement.

- = means equal to
- < means less than
- > means greater than



a. $1/2$  $2/4$

b. $1/4$  $3/8$

c. $4/5$  $4/6$

d. $5/9$  $4/10$





JUMP 13

Samuel Taylor Coleridge was a famous British poet who lived from 1772 to 1834.

Read the first two lines from one of his most popular poems '*Kubla Khan*' and then answer the questions.

***In Xanadu did Kubla Khan
A stately pleasure dome decree***



a. What fraction of the all the words are in the first line? Express your answer in the simplest form.

ANSWER _____

b. What fraction of the words begin with a vowel?

ANSWER _____

c. Expressing your answer as a decimal fraction, how many words end with a vowel?

ANSWER _____

d. What percentage of the words are capitalized or in uppercase?

ANSWER _____

e. What percentage of all the words contain the letter 'a'?

ANSWER _____



JUMP 15

Let's end off by doing a question about a rabbit and revise your understanding of percentage, fractions and decimals.



a. Make a grid on the picture containing at least 10 small squares or rectangles. The smaller shapes must have equal areas.

b. Use your grid to estimate what fraction of the picture is occupied by the rabbit.

ANSWER _____

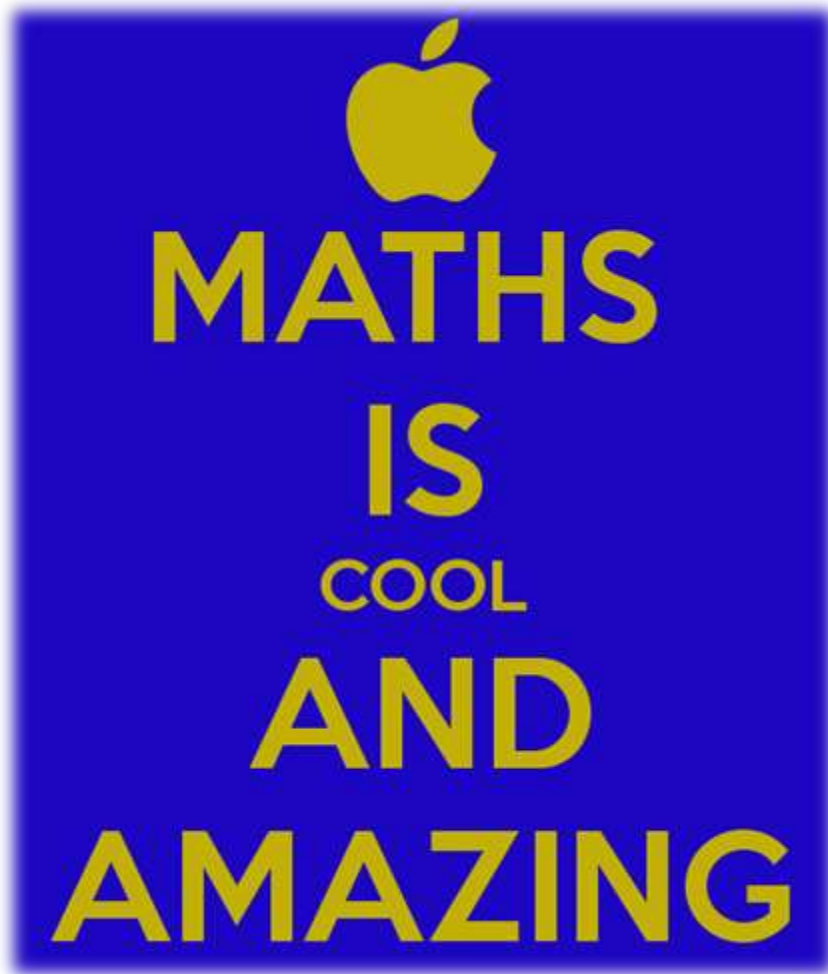
c. Express the area occupied by the rabbit as a decimal fraction.

ANSWER _____



d. Express the area occupied by the rabbit as a percentage of the whole picture.

ANSWER _____





Cut and paste the **CHECK POINT** into your workbook.



CHECK POINT

PERCENTAGE FRACTIONS DECIMALS ACTIVITY 1

How much have you Jumped Ahead applying your Maths knowledge and skills? Write a number from 1 to 10 – 10 is the biggest jump. You'll get fractions, decimals and percentages questions in your exam, so you need to be an expert!

I've jumped _____

Write Maths topic from this worksheet you found easy and a topic you need more practice at.

I'm good at _____

I need to work on _____

LEARNING OUTCOMES

Write your name in the table and ask a parent, teacher or tutor to decide **YES** or **NO** for each learning outcome or success criterion.

My name is _____ and I can	
<i>determine percentages, decimals and fractions of shapes.</i>	YES or NO
<i>explain how percentage, fractions and decimals are related.</i>	YES or NO
<i>calculate the percentage of a given quantity.</i>	YES or NO
<i>form mathematical relationships using = < and > signs.</i>	YES or NO
<i>use grids to estimate percentage and fractions.</i>	YES or NO