

**Monday**

**WALT solve division word problems**

We know we have achieved it when we can

- Read the problem and know which are the key words
- Know which operation to use
- Can write the equation and solve it
- Write the answer with the correct unit.

watch the video to understand how to do simple long division. (Long division is a strategy)

<https://www.youtube.com/watch?v=KGMf314LUc0>

The link given below helps you to understand how to do short division ( Short division is another strategy)

<https://www.youtube.com/watch?v=H87doCOA9n8>

You can use any strategy – long division or short division to solve division problems. Show your working when you solve the problems.

## How many groups? II

This task is about finding the size and number of groups from a given total.



- a) There are 36 pieces of chocolate to be shared equally. If each person gets 4 pieces of chocolate, show how to work out how many people the chocolate has been shared amongst.

How many people? \_\_\_\_

- b) There are 48 teddy bears altogether, and there are 8 teddy bears in each box. Show how to work out how many boxes of teddy bears there are.

How many boxes? \_\_\_\_

- c) There are 56 Christmas trees. If 8 trees are sold to each shop, show how to work out how many shops get trees.

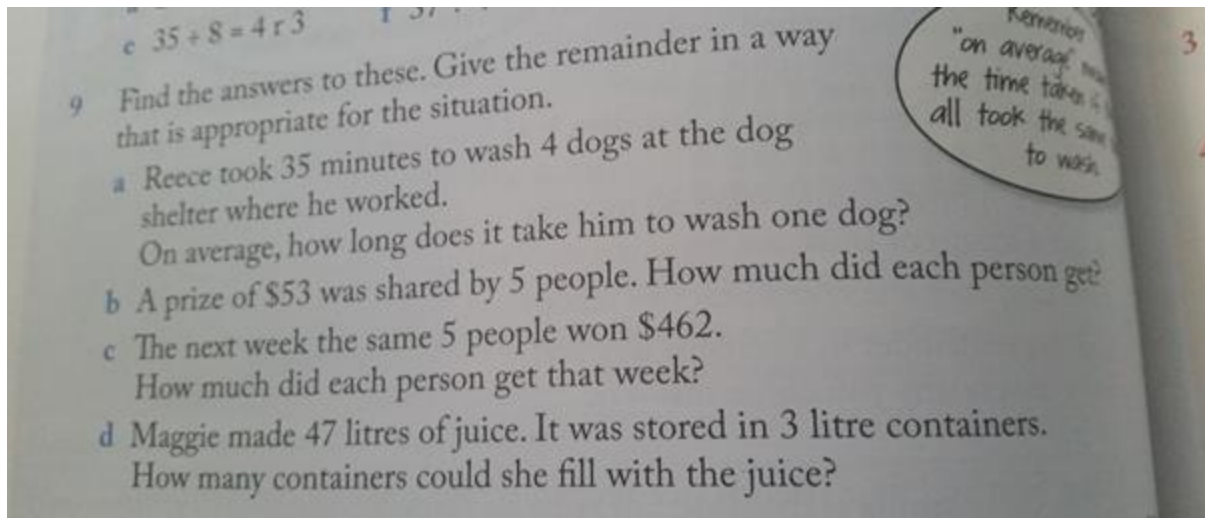
How many shops get trees? \_\_\_\_

- d) 72 students are going to be taken to the zoo in vans. If there are 6 students in each van, show how to work out how many vans will be needed.

How many vans needed? \_\_\_\_

Solve each problem.

- 1) Nancy needs to buy twenty-four apples for apple bobbing. If each bag contains four apples, how many bags will she need?
- 2) Sam is helping to put away books. If he has forty books to put away and each shelf can hold eight books how many shelves will he need?
- 3) Robin had fifteen extra nickels. If she put them into stacks with five in each stack, how many stacks could she make?
- 4) Zoe had ten quarters. If it costs two quarters for each coke from a coke machine, how many could she buy?
- 5) There are forty people attending a luncheon. If a table can hold five people, how many tables do they need?
- 6) Faye was placing her pencils into rows with nine pencils in each row. If she had sixty-three pencils, how many rows could she make?
- 7) There are thirty students in a class. If the teacher put them into groups with five students in each group, how many groups would she have?
- 8) Dave had four bottles of water. If he drank two each day how many days would they last him?
- 9) Amy had to complete forty-eight homework problems. If each page has eight problems on it, how many pages does she have to complete?
- 10) Edward's freezer had twenty-four ice cubes in it. If he had to get ice for six cups, how many pieces should he put in each cup to make them have the same amount?



## Tuesday

L.I: Converting between fractions, decimals and percentages.

S.C: Using the given strategies, convert between fractions, decimals and percentages.

### LEARNING THE SKILL

Here's how to do it...

#### Percentage to fraction:

- Write the percentage over 100, then simplify it (if possible).

e.g.  $45\% = 45/100 = 9/20$

#### Fraction to percentage:

##### Method 1

- Convert the fraction to an equivalent fraction over a 100 first, that then becomes the percentage.

e.g.  $2/5 = 40/100$  (times the bottom and top by 20 to make it over 100)

= 40%

##### Method 2

(Use this method if you can't convert the fraction to an equivalent fraction over 100.)

- Multiply the fraction by 100/1

e.g.  $6/24 \times 100/1 = 600/24$

$$= 25 \% [600 \div 24 = 25]$$

### **Percentage to a decimal:**

- A percentage is a number over 100, therefore write as a decimal number with two decimal places.

e.g.  $17\% = 17/100$

$$= 0.17$$

e.g.  $4\% = 4/100$

$$= 0.04\%$$

### **Decimal to a percentage**

- The same as the previous one, but in reverse.

e.g.  $0.45 = 45/100$

$$= 45\%$$

e.g.  $0.07 = 7/100$

$$= 7\%$$

e.g.  $0.5 = 0.50$

$$= 50/100$$

$$= 50\%$$

### **PRACTICING THE SKILL**

1. Convert these percentages to **decimal numbers**.

e.g.  $42\% = 42/100$

$$= 0.42$$

a.  $43\% =$

b.  $87\% =$

c.  $22\% =$

d.  $3\% =$

e.  $50\% =$

f.  $80\% =$

g.  $9\% =$

- h. 12% =
- i. 18% =
- j. 1% =

2. Convert these decimal numbers to **percentages**.

e.g.  $0.32 = 32/100$

$= 32\%$

- a. 0.31 =
- b. 0.95 =
- c. 0.05 =
- d. 0.4 =
- e. 0.87 =
- f. 0.9 =
- g. 0.08 =
- h. 0.84 =
- i. 0.75 =
- j. 0.01 =

3. Convert these percentages to **fractions**.

e.g.  $15\% = 15/100$

$= 3/20$

- a. 20% =
- b. 80% =
- c. 40% =
- d. 35% =
- e. 5% =
- f. 9% =
- g. 12% =
- h. 30% =
- i. 10% =

4. Convert these fractions to **percentages**.

e.g. 1)  $3/20 = 15/100$

$= 15\%$

e.g. 2)  $6/8 \times 100/1 = 600 \div 8$

$$= 75\%$$

- a.  $5/20 =$
- b.  $30/100 =$
- c.  $4/5 =$
- d.  $8/25 =$
- e.  $6/24 =$
- f.  $11/22 =$
- g.  $3/12 =$
- h.  $2/8 =$
- i.  $4/8 =$

### **MASTERING THE SKILL**

5. Complete the table

Fraction	Decimal	Percentage
$21/100$	0.21	21%
$61/100$		
		37%
	0.85	
		6%
	0.07	
	0.6	
		14%
$9/10$		
$1/2$		

## **Wednesday**

**Learning Intention: To understand that Numbers are made from Factors and can be broken back down to Factors.**

All numbers have Factors, except 0 and 1. (Even an integer could be seen as a number times -1)

Factors: a number or quantity that when multiplied with another produces a given number or expression.

Look at these:

$$2 \times 5 = 10$$

2 and 5 are factors of 10.

Factors of 12 in order are: 1,2,3,4,6,12 or  $1 \times 12$ ,  $2 \times 6$ ,  $3 \times 4$ .

Numbers can be factorised as shown

Factors of 36: (1,2,3,4,6,9,12, 18, 36)

To factorise accurately, you need to know your tables, so that you can divide:

Example: Factorising 36. Where have you seen this number?  $6 \times 6$ ,  $4 \times 9$   $3 \times 12$ , and of course  $1 \times 36$ .

Any more? You can divide by 2:  $2 \times 18$ .

Now you have all the factors of 36

Part 1

List the factors of:

1. 12
2. 16
3. 18
4. 24
5. 28
6. 32
7. 42
8. 48
9. 60
- 10.72
- 11.78
- 12.84
- 13.90
- 14.96
- 15.100

(You can insert your answers here)

### **Learning Intention: To understand Primes and to Find Prime Factors of a Number**

Primes from 1 to 100

There are 3 main rules:

1 is not a Prime



2 is the only even prime

A Prime is a number with only two factors, itself and 1.

Another hint: If the number appears in your times tables as a product, or answer, it is NOT a Prime.

Smaller Primes are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29.

Here is one way to list Prime Factors:

Factor Trees

Here is another way:

Fact or	Int o:
2	48
2	24
2	12
2	6
3	3
	1

Note that when the answer is 1, Stop.

The Prime Factors are:  $2 \times 2 \times 2 \times 2 \times 3 = 48$

Part 2

Show the Prime Factors of:

1. 12
2. 16
3. 18
4. 24
5. 28
6. 32
7. 42
8. 48

- 9. 60
- 10.72
- 11.78
- 12.84
- 13.90
- 14.96
- 15.100

(You can insert your answers here)

## Thursday

### Integers

L.I. to understand and use integers when adding and subtracting.

S.C. – be able to list integers in order of size from smallest to largest.

- to be able to add and subtract positive integers correctly.
- to be able to solve simple real life word problems involving integers.

<https://www.youtube.com/watch?v=u69pYSdwugo>

<https://www.youtube.com/watch?v=OAoLCXpao6s>

Draw a number line on paper and continue the arrow to the left of 0. Put the negative numbers evenly spaced on the left of the 0. -1 is on the left of 0, -2 is on the left of -1 and continue till you get to -10. Now draw numbers on the right of 0 and continue till you get to 10.

Use this to help with the work below.

**1. Put the following integers in order of size from smallest to largest.**

- A -12, 3, -5, 2, -1, 4
- B -43, -5, -64, 13, 29, -3
- C 43, -7, -41, 17, 37, -37
- D -8, -6, -10, -2, 0, -5
- E 4, 10, -21, -4, -5, 16

**2. Greater than or less than?**

Insert the correct symbol in between the two numbers given below to make the number sentences correct.

(Remember. The arrow points to the smaller number and it is wide next to the bigger number.

Example  $5 < 7$ ,  $3 > -2$ )

A) -7     -6            B) -2    -22            C) -17    -1            D) -978     978

E) 14     26            F) -3     3            G) -4     2            H) 4     -5

**L.I.** to be able to add and subtract integers.

On a piece of paper draw a number line and use it to help you solve these equations.

Remember when adding a positive number always move to the right on the number line.

When subtracting a positive number always move to the left on the number line.

Example  $-2 + 5 = 3$                            $-2 - 5 = -7$

Complete the following

A)  $-6 + 13 =$                           B)  $-13 + 7 =$                           C)  $-6 - 3 =$                           D)  $-12 - 2 =$

E)  $9 + 3 +$                           F)  $-2 + 8 =$                           G)  $9 - 13 =$                           H)  $-4 - 7 =$

### 3) Solve these real life word problems

TEMPERATURE. If the temperature at 6am was  $-2$  degrees C and by midday it had risen by 4 degrees, what would the midday temperature be?

BANK ACCOUNTS A bank account has a balance of \$15.00. A \$25.00 withdrawal is made. What is the new balance?

BUILDINGS . A building has 9 floors in total, with 2 below the ground floor and 6 above the ground floor. If you worked on the 3<sup>rd</sup> floor and went down 4 floors, what floor would you now be on?

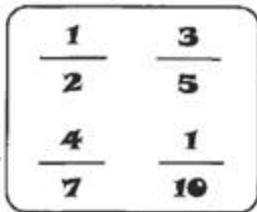
## Friday

### Practice and Mastery

We are learning about fractions.

## Introduction to fractions:

A **fraction** is part of a whole. In the box are some examples of fractions, but what exactly do they mean?



Answer:  $\frac{1}{2}$  means 1 out of 2.

$\frac{3}{5}$  means 3 out of 5.

$\frac{4}{7}$  means 4 out of 7.

$\frac{1}{10}$  means 1 out of 10.

How do you say these fractions above?

Answer: one half, three fifths, four sevenths, one tenth

Here are some diagrams of a panda bear, some of which are shaded black.

How many diagrams are there? What fraction is shaded black?

Answer: 7 diagrams, 3 shaded. Written as a fraction, that would be  $\frac{3}{7}$ .



### Task 1: Understand the meaning of fractions and writing in words

1. What do these fractions mean and write in words, how you would say each fraction. Complete the table below. The first one has been done for you.

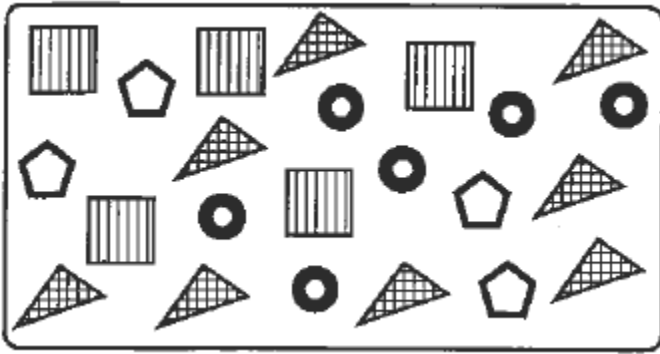
Fraction	What it means	Expressing these fractions in words
1/3	1 out of 3	One third
1/6		
1/4		
1/8		
3/4		
3/7		
5/6		
7/8		
2/3		
3/10		

### Task 2: Expressing fractions as a number

Write these fractions as a number. The first one has been done for you.

1. One fifth-  $\frac{1}{5}$
2. Three eights-
3. five sevenths-
4. Six tenths-
5. four sixths-
6. Two thirds-
7. seven eighths-
8. Three quarters-
9. four tenths-
10. Three sevenths-

### Task 3: working out fractions



The box above contains some mathematical shapes. Answer the questions below using the image above

1. How many mathematical shapes inside this box?
2. What fraction of the shapes are squares?
3. What fraction of the shapes are circles?
4. What fraction of the shapes are pentagons?
5. What fraction of the shapes are triangles?