Term 3 week 9 Distance Learning Assignments

Extra for experts

Monday

WALT to solve word problems

We know we have achieved it when we can

- read the problem and highlight the keywords
- think what operations to use and write the equation
- Solve it and write the correct unit.

Solve these division equations using any strategy you like. You can do short division, long division or even known multiplication facts to get the answer. Write your answers and show your working in the table provided below.

1) $120 \div 4 =$ _____
2) $160 \div 2 =$ _____
3) $180 \div 6 =$ _____
4) $200 \div 4 =$ _____
5) $210 \div 3 =$ _____
6) $150 \div 5 =$ _____
7) $180 \div 9 =$ _____
8) $350 \div 5 =$ _____
9) $320 \div 8 =$ _____
10) $180 \div 90 =$ _____
11) $240 \div 60 =$ _____
12) $120 \div 30 =$ _____
13) $200 \div 20 =$ _____
14) $280 \div 40 =$ _____
15) $90 \div 30 =$ _____
16) $250 \div 50 =$ _____
17) $320 \div 80 =$ _____
18) $360 \div 60 =$ _____
19) $450 \div 50 =$ _____
20) $270 \div 90 =$ _____

Ques No	Answers	Showing your working
1		
2		
3		
4		
5		
6		

7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Read the questions and solve the following problems. You can draw pictures, tables or make a list to help you solve the problem. Write your answer and show your working in the table provided below. Research words you don't know when you come across them like yards and pounds in these mathematical contexts.

Multiple-Step Problems

a. Calvin paints pictures and sells them at art shows. He charges $56.25 for a large painting. He charges $25.80 for a small painting. Last month he sold six large paintings and three small paintings. How much did he make in all?

Show your work and label your answer.

answer: _____

b. Jennie makes quilts. She can make 7 quilts with 21 yards of material. How many yards of material would be required to make 12 quilts?

Show your work and label your answer.

answer: _____

c. Brayden and Gavin were playing touch football against Cole and Freddy. Touchdowns were worth 7 points. Brayden and Gavin scored 7 touchdowns. Cole and Freddy's team scored 9 touchdowns. How many more points did Cole and Freddy have than Brayden and Gavin?

Show your work and label your answer.

answer: _____

d. On Thursday the Meat King Market sold 210 pounds of ground beef. On Friday they sold twice that amount. On Saturday they only sold 130 pounds. How much more meat did they sell on Friday than Saturday?

Show your work and label your answer.

answer: _____

Ques	Show your working and write your answer here
a	
b	
c	
d	

Tuesday – MS

L.I.: Find the fraction of a quantity.

S.C.: Find the solution by dividing the quanity by the denominator and multiplying your answer by the numerator.

1. Find the size of each share as a fraction.
    a. 4 kg divided into 5 bags. How much per bag? Answer:
    b. 3 km divided into 7 stages. How long is each stage? Answer:
    c. 2 L poured into 9 cups. How much per cup? Answer:
    d. 5 g made into 10 pellets. Mass per pellet? Answer:
    e. 5 m of material cut into 12 skirt lengths. Length per skirt? Answer:
    f. 7 packets of sweets divided among 10 children. Packets per child? Answer:
    g. 12 bottles of drink divided among 25 cups. Bottles per cup? Answer:
    h. 25 problems solved in 40 minutes. Problems per minute? Answer:
2. Find the number in the group if each member gets the given share of the quantity.
    a. 6 pizzas shared to give 2/3 of a pizza each. Answer:
    b. 12 kg of potatoes, with ¾ kg per bag. How many bags? Answer:
    c. 18 g of mixture, with 2/5 g per pill. How many pills? Answer:
    d. 30 km of road with 10/3 km per stage. How many stages? Answer:
    e. 6 L of juice with 3/8 L per glass. How many glasses? Answer:
    f. 9 m of string with 3/8 m per piece. How many pieces? Answer:
3. How many trips can be made on a full tank if each trip takes:
    a. 1/3 of a tank? Answer:
    b. 2/7 of a tank? Answer:
    c. 3/8 of a tank? Answer:
    d. 4/10 of a tank? Answer:
    e. 5/12 of a tank? Answer:
4. Mira shares 3 pizzas amongst 4 children. How much pizza does each child get? Answer:
5. 5 kg of strawberries are put into 8 punnets. What weight of strawberries went into each punnet? Answer:

6. A 2 m length of rope is cut into 3 equal pieces. How long is each piece? Answer:
7. 5 volunteers gave a total of 8 hours of their time to co a community project. Each volunteer worked the same length of time. How long did each volunteer work? Answer:
8. At a picnic, some packets of biscuits were divided evenly amongst four families. If each family got ¾ packet, how many packets of biscuits were there? Answer:
9. Pippa has 6L of juice. She uses 3/10 of a litre of juice in each glass. How many glasses can she fill? Answer:
10. A running circuit is ¾ km long. Beth runs around the circuit until she has done 15 km. How many times did she run around the circuit? Answer:
11. It takes Manu 3/5 minute to fill an envelope with a letter, stamp and address it. How many letters can Manu complete in 45 minutes? Answer:

Wednesday – Gri

Extra for Experts

Learning Intention: To learn ways of tackling Word Problems.

1. Read the question carefully. Every word matters. What answer is being asked for? It may not be what you think.

Example:

A Mary and Rua together weigh 65kg.

B Mary, Rua and Joe weigh 95kg.

C Mary and Joe together weigh 75kg.

Answer needed: What does Rua weigh?

Steps: From A and B we see that Joe weighs 30kg. (95-65=30)

From C we see that Mary weighs 45kg (75-30)

From A we find the answer: Rua weighs 20kg (65-45=20)

DO NOT PUT down Mary 's and Joe's weights in your answer.

2. After you answer, ask yourself: Is this answer sensible? Does it work for all the statements in the problem?

Example:

A When added together two whole numbers give a total of 10.

B When multiplied together, the same numbers give a product of 21.

Answer needed: What are the two numbers?

Steps: 2 + 8 =10 This works for A.

Check for B. 2 x 8 = 16 does not equal 21. Fails for B

Try again: 5+5 (No, 2 numbers are the same – 5 x 5 = 25, not 21

Try again: 3 + 7 = 10 Works for A

3 x 7 = 21 Works for B.

Then LIST the numbers: 3,7

Do not put the working as the answer – it was not required.

Maths is not Magic. You just need to take one step at a time.

Your turn:

1. Sam's parents bought a bicycle shop with many broken bicycles and tricycles. Sam counted 44 wheels (all the same size). There were 17 frames. His father said all the wheels would fit on the frames. How may bicycles will result? How many tricycles?
2. The average of four numbers is 12. If 7 is added to the four numbers, what will the new average be?
3. A chemist can only pack perfumes in boxes of 6 and boxes of 8. What is the **least** number of full boxes needed to package 46 perfumes?
4. If a box half full of apples weighs 16 kg, and the same box one third full of apples weighs 12kg, what does the box weigh when empty?
5. I opened my dictionary at the middle and discovered that the two consecutive page numbers when multiplied together gave a product of 1640. What are the two page numbers?
6. June was given a box of chocolates for her birthday. She ate one fourth of her chocolates after breakfast. She had a second feast when she ate one-third of the remainder. There were now only 18 chocolates left. How many were in the box when she first opened it?
7. 8 cricket teams played in a tournament. In the first round, every team had to play every other team once. How many games were in this first round?
8. Three friends travelled on an AirNZ plane before lockdown. They noticed their boarding passes were numbered in a consecutive order. (e.g. 7,8,9)

When multiplied the numbers multiply to make 29760. What are the seat numbers?

9. Ben and Carl ran a 50 m race. Ben won by 15 metres. Next they ran a 60 m race at the same speed as the first race. By how many metres would Ben have won the second race?
10. If a father is four times as old as his daughter, how many years ago was the daughter 2 years old and the father 32?

Thursday- Ricardo

STAR WARS THE BATTLE OF ENDOR

Superstardestroyer (Executor) *Imperial Star destroyer*

The Battle of Endor was the last battle in The Return of the Jedi in STAR WARS.

The Rebel Fleet sent an attack in order to destroy the second Death Star and kill the evil emperor Palpatine.

There was a large variety of capital ships and fighters for the Rebels as well as for the Empire.

The Imperial Side fought with:

2 Superstardestroyers, 20 Imperial Destroyers, 10 Victory Destroyers, 12 Dreadnaughts, 24 Carrac Cruisers, 8 Tectors, and 24 other capital ships.

The Alliance side had:

21 Mon Calamari, 14 Dreadnaughts, 7 Corellian Corvettes, 14 Corellian Gunships, 14 Nebulous Frigates and 28 other capital ships.

Several Mon Calamari designs *Corellian Corvette*

1. Make a table with the following columns:

Name all the Capital Ships for the Empire

The number of units

Find the fraction of each class ship to the total of all the Empire ships.

Find the percentage of each class ship to the total of all the Empire ships.

As an example, the first one is done for you.

Name of Ships	Number of Ships	Fraction	Percentage
Superstardestroyer	2	2/100=1/50	2%
Imperial Destroyer			

Name all the Capital Ships for the Alliance

The number of units

Find the fraction of each class ship to the total of all the Alliance ships.

Find the percentage of each class ship to the total of all the Alliance ships.

As an example, the first one is done for you.

Name of Ship	Number of Ships	Fraction	Percentage
Mon Calamari	21	21/98= **3/14**	21.4
Dreadnaught			

Rebel Briefing before the Battle of Endor

If you are playing Minecraft and the sea is 30 meters deep, and you want to make a column up to the surface:

How many blocks do you need if the column is 1mx1m? .....

And if you want to make a bridge, 5 meters above the water, how many blocks do you need per column if it is 1mx1m? .....

If it is 2mx2m, how many blocks do you need?.....

If you have never played Minecraft, 1 block is 1mx1mx1m.

Write down a problem for Minecraft that can be used to understand Integers (positive and negative numbers) that we can use for students next term or next year.

A class with 24 students buys pizza for a shared lunch. They buy 6 pizzas, each pizza is cut into 8 pieces. How many pieces do each student get if it is shared equally?

A diver found a treasure 20 meters deep in a river, he has to tie the treasure with a rope and pull it from the boat. The boat deck is 2 meters above the water. How long should be the rope? Why?

The minimum wage is $15.12 per hour.

How much would you earn if you work for

a. 4 hours.
b. 8 hours
c. 40 hours (a week full time)

But there is a little problem, you have to pay tax, 18%

d. What is the tax paid in situation (a) and how many dollars can you take home?
e. What is the tax paid in situation (b) and how many dollars can you take home?

f. What is the tax paid in situation (c) and how many dollars can you take home?

Friday – Azi

We are learning to read and understand information displayed in a graph.

Activity 1: Birth months

This task is about planning a statistical investigation.

Lagi wanted to find out what month of the year was the most common for birthdays in Year 8. She decided to carry out an investigation in her school to find this out.

a. What question will Lagi need to ask to get information for her investigation?

b. Who will Lagi need to ask?

c. Design a table (not a graph) below that Lagi could use as she collected her data.

d. Lagi wants to present her data to the class. What type of a graph could she use?

Activity 2: Kauri Trees

A scientist measured the height of 50 young kauri trees.

The table below shows how many of the trees were at different heights.

Height of Trees (cm)	Number of Trees
65	1
66	5
67	3
68	6
69	8
70	10
71	7
72	10
TOTAL	50

a. How many kauri trees are:

- Exactly 66cm tall?

- More than 70cm tall?

- Less than or equal to 68cm tall?

- Less than 71cm, but more than 66cm tall?

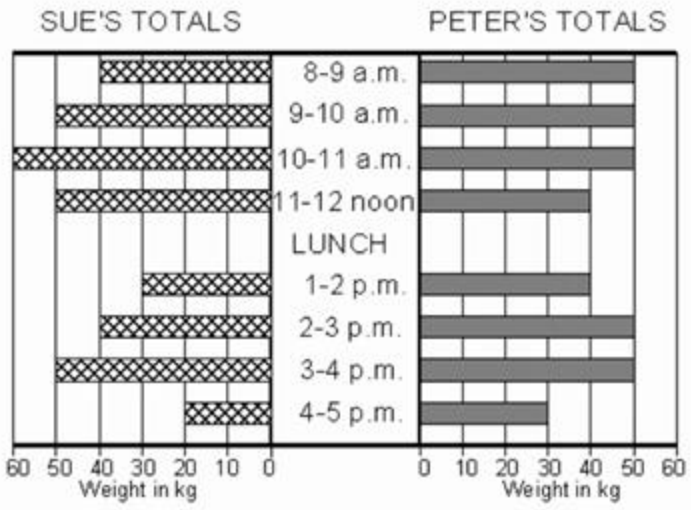
b. What percentage of kauri trees are:

- Exactly 70cm tall?

- Less than 69cm, but more than 65cm tall?

Activity 3: Apple pickers

Sue and her brother Peter picked apples during their summer holidays. One day they kept a record of how many kilograms each of them picked per hour. Sue drew an unusual bar graph, turned on its side, with the bars placed 'back-to-back', at hourly intervals. This graph is shown below.



a. In what hour did Sue pick her **largest** weight of apples?
How many kg did she pick?

b. In what hour did Peter pick his **smallest** weight of apples?
How many kg did he pick?

c. How many kgs **more** did Peter pick than Sue in the whole **afternoon**?

d. Look at the two graphs **as a whole**. Now write down **one** thing about the 'picking patterns' of Sue and Peter that is the same, and **one** thing about their 'picking patterns' that differ.

Same:

Different:

Activity 4: College Students' heights

Students at Tunlee College decided to find out whether the Year 9 males were taller than the Year 9 females.

They chose 30 males and 30 females at random. Here are their results.

Males (height in cm)				
146	160	166	171	175
149	160	167	171	178
151	162	167	171	179
153	163	168	173	181
155	165	170	173	184
157	165	170	174	185

Females (height in cm)				
143	153	159	162	169
147	154	160	165	170
149	156	161	166	171
151	157	161	166	173
152	157	162	167	176
153	158	162	169	178

a. In the table below, draw a back-to-back stem-and-leaf graph for this data. The graph has been started for you.

Males	Height (CM)	Females
	13	
	14	
	15	
	16	
	17	
	18	
	19	

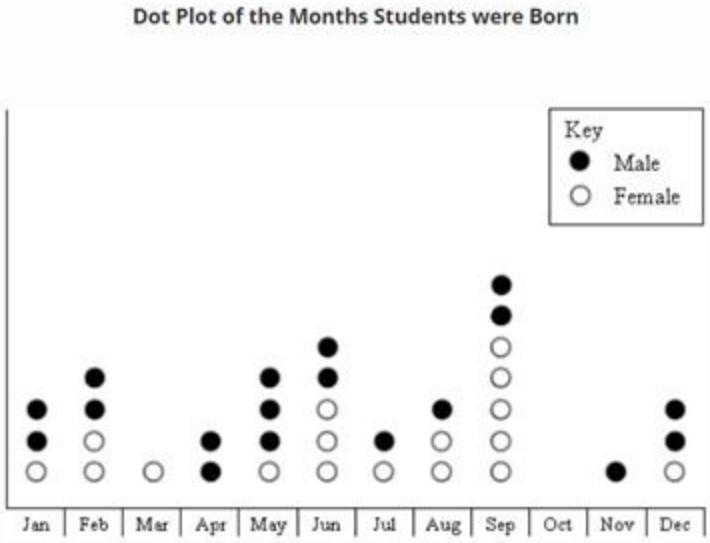
b. What is the most common range of heights for the females? Highlight your answer

- 140-149cm
- 150-159cm
- 160-169cm
- 170-179cm

c. Make a statement which compares the heights of Year 9 males with Year 9 females

Activity 5: When were your born?

This task is about interpreting a composite dot plot.



All the students in Class 10DP plotted the month in which they were born on the dot plot above.

Answer the following questions about the Class 10DP students.

a. How many male students were there?
b. In which month were most males born?
c. In which month were none of the students born?
d. In which month(s) do no females have birthdays?

Activity 5: Unemployment rate

This graph shows the average unemployment rate in New Zealand for each of the years 1989-1997. Answer the following questions about the graph.

a. In which year was the unemployment rate 7 percent?

b. In which two years was the unemployment rate over 10 percent?

c. Which year had the sharpest fall in the unemployment rate? Highlight your answer

- 1992-93
- 1993-94
- 1994-95
- 1995-96