Ms MARTIN'S YEAR 5 MATHS GROUP TERM 4 WEEK 3

Zoom Link Maths Zoom Meeting Tuesday 12:30pm and Friday 12:30pm

https://nsweducation.zoom.us/j/6510791704?pwd=bTRoVkVoVTJTTTlRbllrTjhzVWY0UT09

Meeting ID: 651 079 1704 Passcode: 718583.

1. **Speedy Starters. Complete a Speedy starter card to start each maths lesson this week.**

Attached are the "Speedy Starter" problems. Complete one Speedy Starter card each day. There are two questions on each card. I.e., This means you will need to complete both questions on the one card per day.

2. **Tables Speed Test. Week 3 Speed Times Tables**

Start with your tables Speed Test. Complete the Speed tables attached. Complete all columns. Time yourself. Write the time for each column at the bottom of each column. Once you have completed all columns, work out your average time for the 3 columns. Write your average time for the day on the back on the page.

3. **Stepping Stones Text**

Page 230 and 231: Division with Remainders - Common Fractions

Page 232 and 233: Division with Remainders – Decimal Fractions

4. **Worksheets – Complete the two student worksheets (attached)**

Square Pattern

Magic Squares

**These pages are copied and attached for you.*

5. **Maths Text pages ("Advanced primary maths" book)**

Complete a page each day.

Page 130. Super Problem Solving

Page 134. Super Problem Solving

6. **Optional: Complete activities in Prodigy Maths or Mathletics - on this week's topics of division, data, measuring and converting millilitres.**

If you need your login details just email Ms Martin for these.

1. **SPEEDY STARTERS**

9

Write < (is less than), = (is equal to), or > (is greater than) to make each of these true.

a. 89 – 37 ____ 80 – 30 – 2

b. 253 – 118 ____ 255 – 120

c. $20 – $12.49 ____ $20 – $12 + 49¢

d. 500 – 365 ____ 499 – 364

e. 3.4 – 2.8 ____ 2.8 – 3.4

10

a. Figure out the answer to this number sentence **in your head**.

$$6 \times 40 = \_\_\_\_\_$$

b. Write about the strategy you used.

c. Write **four** other number sentences that you could solve the same way.

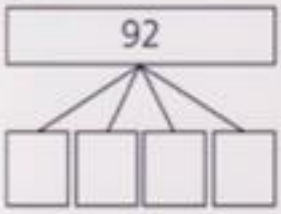
2.

11

Imagine you divided each of these amounts into **four equal** groups.

Write two number sentences to match each one.

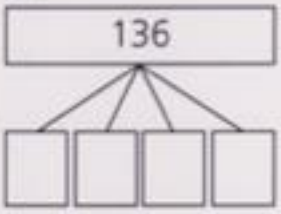
a.



92 ÷ ___ = ___

___ x ___ = 92

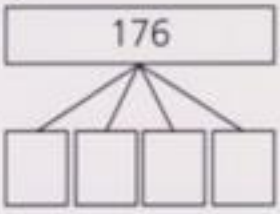
b.



___ ÷ ___ = ___

___ x ___ = ___

c.

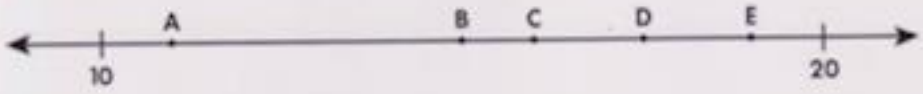


___ ÷ ___ = ___

___ x ___ = ___

12

Look at this number line.



What numbers could be **located** at points A, B, C, D, and E?

Term 4 Week 3 Speed Test

6 x 6=	8 x 7=	3cm + 4cm + 6cm=	14 3 = 17
6 x 11=	5 x 3=	Double 12	3 6 = 18
6 x 2 x 4=	6 x 6=	Halve 60	14 5 = 9
6 x 3 x 2=	9 x 9=	Quarter of 12	21 7 = 3
6 x 12=	8 x 6=	Third of 9	21 6 = 126
9 x 6=	4 x 8=	Fifth of 25	21 2 = 42
0 x 6=	12 x 7=	20 cm = mm	42 7 = 6
10 x 10=	3 x 8=	10 mm = cm	42 6 = 7
4 x 100=	8 x 0=	6 multiplied by 7=	42 5 = 47
4 x 1000=	10 x 8=	66 divided by 11=	56 50 = 6
6 x 7=	7 x 1000=	Product of 4 and 3=	56 6 = 50
6 x 5=	100 x 87=	Sum of 17 and 19=	56 5 = 61
6 x 6=	8 x 40=	Add 12 to 23=	49 7 = 7
15 x 6=	8 x 20=	Subtract 18 from 26	4 6 = 24
13 x 6=	8 x 50=	Halve 72	49 5 = 44
Total: /15	**Total: /15**	**Total: /15**	**Total: /15**

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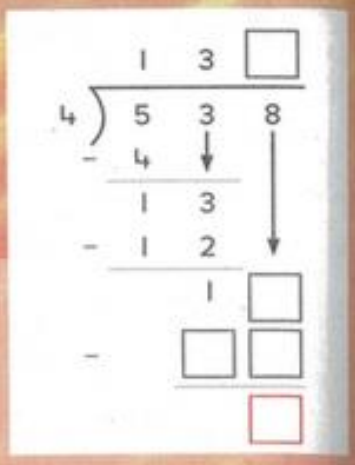
3. STEPPING STONES PAGES

Step In — Recording Remainders as Common Fractions

Julia used the formal division algorithm to solve 538 ÷ 4.

Complete her algorithm.

What digit did you write in the red box.
What does it represent?



The digit represents the remainder or 'r'. The remainder can be recorded as a whole number, common fraction or decimal fraction.

Read these word problems.

A ribbon is 538 cm long.
Caleb cuts the ribbon into 4 equal lengths.
What is the length of each piece?

538 scouts attend the annual jamboree.
Each tent sleeps 4 scouts.
How many tents will they need?

How would you write the remainder in each problem? How did you decide?

Step Up

1. Write the remainder in each answer as a common fraction.
The first example has been done for you.

a. $67 \div 5 = 13$ r 2	$67 \div 5 =$	$13\frac{2}{5}$	
b. $85 \div 4 = 21$ r 1	$85 \div 4 =$		
c. $94 \div 3 = 31$ r 1	$94 \div 3 =$		
d. $77 \div 6 = 12$ r 5	$77 \div 6 =$		
e. $118 \div 5 = 23$ r 3	$118 \div 5 =$		
f. $175 \div 8 = 21$ r 7	$175 \div 8 =$		

2. Explain the thinking you used for Question 1.

3. Solve these word problems. Express the answer in the most appropriate way.

a. Three tennis balls fit in a can. How many cans are needed for 160 tennis balls?

_____ cans

b. 182 students are going on school camp. Each cabin sleeps 8 students. How many cabins are needed?

_____ cabins

c. The movie runs for 155 minutes. Alexa paused the movie halfway through. How many minutes had passed before Alexa pressed pause?

_____ minutes

d. The drive from Koki's house to the beach is 178 km. His dad says that they are exactly $\frac{1}{4}$ of the way. How far have they travelled?

_____ km

Step Ahead

Look at this number chart.

120	121	122	123	124	125	126
127	128	129	130	131	132	133
134	135	136	137	138	139	140
141	142	143	144	145	146	147
148	149	150	151	152	153	154

a. Colour **blue** numbers that leave no remainder when divided by 6.

b. Colour **red** numbers that leave a remainder of 1 when divided by 6.

c. Colour **green** numbers that leave a remainder of 3 when divided by 6.

d. Colour **yellow** numbers that leave a remainder of 5 when divided by 6.

e. What do the remaining numbers show?

_____

_____

Step In Recording Remainders as Decimal Fractions

Five friends equally shared the cost of this gift. How much did each person pay?

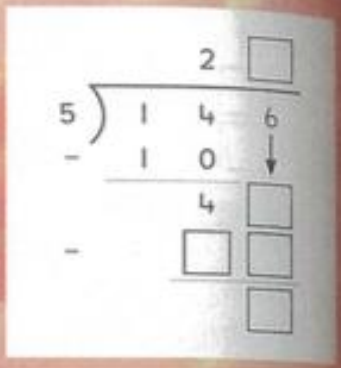
I know it's less than $30, because 5 × $30 = $150 and that's too much.

Molly uses the formal division algorithm to work out the answer.

Complete the algorithm.

What does the remainder represent?

How could you share $1 equally among 5 friends?



I dollar has the same value as 100 cents. I can share 100 equally among 5.

How much did each person pay?

Step Up

1. Complete these.

a.	$1 shared between 2 is	50	cents each or	$0.50
b.	$1 shared among 4 is		cents each or	$
c.	$1 shared among 5 is		cents each or	$
d.	$1 shared among 10 is		cents each or	$
e.	$1 shared among 20 is		cents each or	$
f.	$2 shared among 4 is		cents each or	$
g.	$2 shared among 8 is		cents each or	$

2. Solve these word problems. Express the answer in the most appropriate way.

a. It costs $235 to stay at a hotel for two nights. What is the cost of one night?

$_____ each night

b. The square lion enclosure has a perimeter of 297 m. What is the length of each side?

_____ m

c. In one day 563 eggs are collected at a chicken farm. The eggs are packed into cartons of 6. How many cartons are used?

_____ cartons

d. Fiza buys a new dishwasher for $641. She pays for it in 5 equal monthly payments. How much does she pay each month?

$_____ each month

Step Ahead

Use patterns to help you show three different ways to express answers that have amounts left over. Some rows have been completed for you. The letter **r** is the abbreviation for **remainder**.

a.

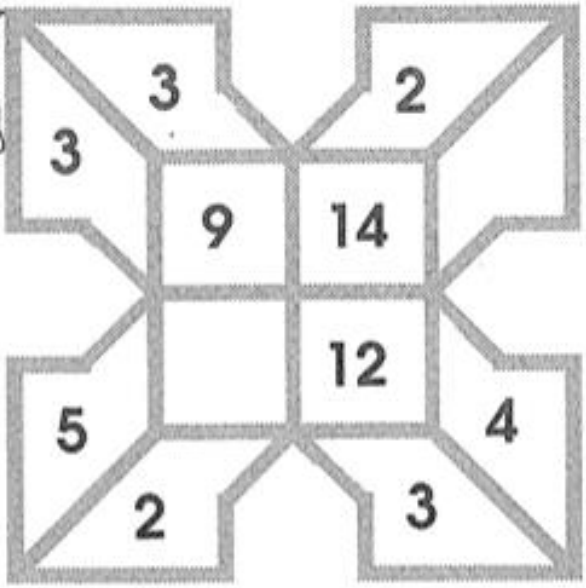
	Answer		
122 ÷ 4	30 r 2	$30\frac{2}{4}$	30.5
123 ÷ 4	30 r 3	$30\frac{3}{4}$	30.75
124 ÷ 4	31	31	31
125 ÷ 4			
126 ÷ 4			
127 ÷ 4			

b.

	Answer		
208 ÷ 5	41 r 3	$41\frac{3}{5}$	41.6
209 ÷ 5			
210 ÷ 5			
211 ÷ 5			
212 ÷ 5			
213 ÷ 5			

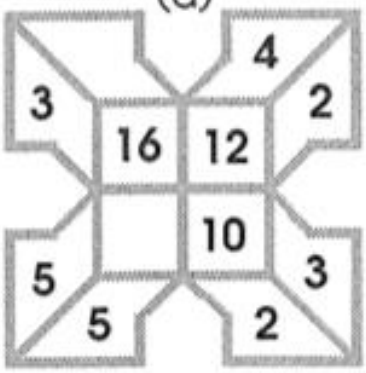
SQUARE PATTERN

Try to work out the pattern in the drawing and fill in the missing numbers.

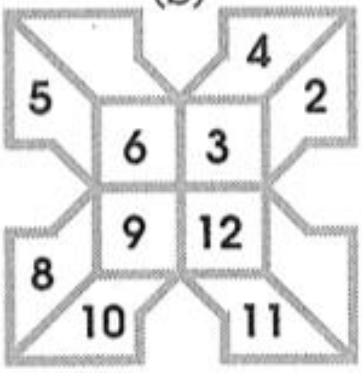


Try to find the missing numbers in these drawings.

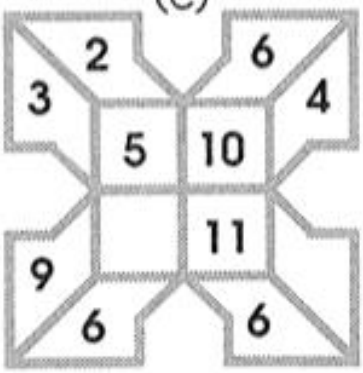
(a)



(b)

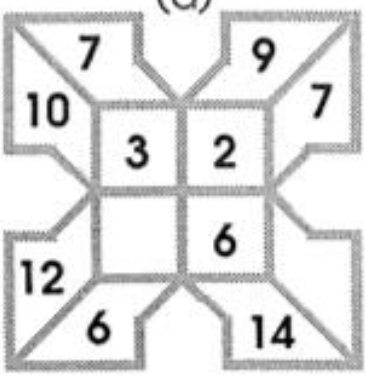


(c)

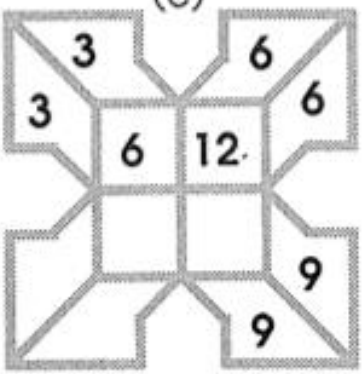


Make up your own to share.

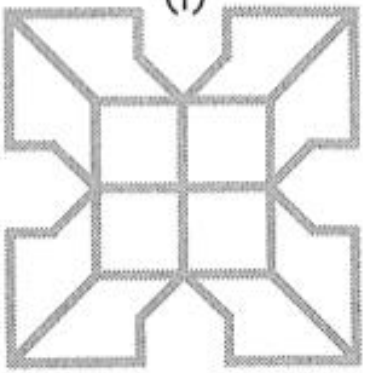
(d)



(e)



(f)



Magic Squares

The first magic square discovered appeared in a Chinese book written before 1000 BC. The numbers in a magic square add up to the same amount if added across, down or diagonally. EXAMPLE: Write the magic number above the square.

15

4	9	2
3	5	7
8	1	6

18

8	1	9
	6	

12

0	4	8
		1

8		10
		5
		6

	18	4
	10	
16		

3		
	4	
	0	5

12		
	10	
	18	8

	11	
	7	
	3	10

		7
6	4	2

	1	
	5	
2	9	

8	13	6
7		

	0	
2	10	3

		13
	10	
7	14	

3		
7	2	9

16	11	12
14		

UNIT 28 Super problem solving

9 **Taxi Taxi**

Mr Bob drives tourists around his tropical island. He doesn't have a booking fee but he charges each passenger a flat $3.50 at the start of the journey. He also charges $3.25 per kilometre travelled regardless of the number of passengers.

Calculate the cost of each taxi ride.

a The Hook family of 4 travelled from A to D via B and I. $_____

b The Wendy family of 3 travelled from D to H via E, F and G. $_____

c The Thomas family of 2 travelled from E to B via F, G, H and I. $_____

10 Solve the problems.

a	Mr Lim paid $35 467 for a new car plus $2307 for air-conditioning and $1563 for power steering. What was the car's total cost?		c	Jack saved $154 per month for 16 months. If he had already saved $1285, what would be his total savings?	
b	This season the Wanderers scored 48 tries worth 4 points and 89 goals worth 2 points. If they scored 546 points last season, how many points less did they score this year?		d	Mr Grant passed away and left $\frac{2}{3}$ of his money to his children and $\frac{3}{4}$ of what remained to his wife. The rest went to charity. How much went to charity if he left a total of $1260?	

WEEKLY TESTER

11 Mr and Mrs Hughes, their children and some pensioner relatives visited the zoo. How many children and pensioners visited the zoo if the total amount for the zoo entry for all of them was $76?

a Children _____ b Pensioners _____

ZOO ENTRY	
Adults	$17.50
Children	$6.50
Pensioners	$7.50

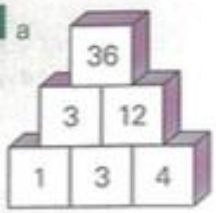
OPEN-ENDED CHALLENGER

12 Mr Longbottom, the Year 5 teacher, said that the answer to the problem was 15 r 4.

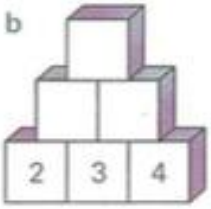
If Mr Longbottom's problem was about lollies being shared between friends, how many lollies might there have been and how many friends?

Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental and written strategies and appropriate digital technologies (ACMNA100)

9 a



b



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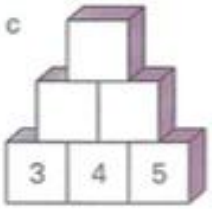
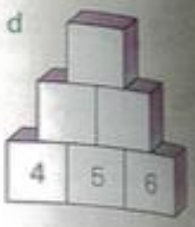


d



10 Solve the problems.

a	There are 1256 passengers on a ship and 298 crew. How many people are there on the ship?		d	Len's step is 0.8 m long. How many steps would Len have to take to walk a distance of 10.4 m?	
b	Students paid $20 each for the bus plus $36 each for the camp. What was the total cost for 30 students?		e	A train travelled 1088 km. If it made 8 stops, what would be the average distance between stops?	
c	Total sales for LIVE magazine for the last two months were 34 678. How many were sold in the first month if there were 1200 more sales in the second month?		f	Tom runs 24 laps of the 400 m athletics track every day of his life. How far would Tom run in 4 full weeks of running?	

WEEKLY TESTER

11 Mr and Mrs Simpson went on their annual holidays. Which destination did they reach if they left Sydney and averaged the following speeds? _____

- They averaged 70 km/h for the first hour
- They averaged 107 km/h for the next 2 hours
- They travelled at 108 km/h for the next 20 minutes
- They travelled at 102 km/h for the next 40 minutes
- They travelled at 60 km/h for 10 minutes.

Distances from Sydney

OPEN-ENDED CHALLENGER

12 Bill's shifts never start or finish on the hour. He always starts his shifts in the morning and finishes them in the afternoon. What time do you think Bill might start his shifts on these days?

Day	Hours	Start	Finish
Mon	5 hr 15 min.		
Tues	6 hr 30 min.		
Thur	7 hr 23 min.		
Sat	8 hr 57 min.		

Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental and written strategies and appropriate digital technologies (ACMNA100)

ANSWERS – SUPER PROBLEM SOLVING

Part 11
a 0735 c 1156 e 2236
b 1540 d 1955

Part 12
a 12 b 8 c 40

Part 13
a 8 cm² b 10 cm²

Part 14
yes

UNIT 28

1
a 0.43 d 0.25 g 0.7 j 0.875
b 0.08 e 0.4 h 0.125 k 0.375
c 0.8 f 0.75 i 0.8 l 0.6

2
a 151 r 1 or $151\frac{1}{5}$ d 55 r 5 or $55\frac{5}{8}$
b 61 r 3 or $61\frac{3}{4}$ e 165 r 2 or $165\frac{2}{5}$
c 122 r 3 or $122\frac{3}{8}$

3
a 151.2 c 122.375 e 155.4
b 61.75 d 55.625

4
a 449.375 f 353.6666666
b 372.625 g 1211.166666
c 212.875 h 213.1428571
d 353.3333333 i 432.22222
e 1123.625

5
a 90.75 c 586.25
b 113.40 d 180.625

6
a 4 c 4 e 90 g $\frac{1}{3}$
b 3 d 5 f 5 h 2

7

a	10% of 500	f	30 – 6
b	75 ÷ 3	g	90 – 9
c	150 – 25	h	100 – 77
d	25 × 7	i	21 × 4
e	$\frac{1}{2}$ × 99	j	17 + 30

8
a 5 c 8 e 100 g 17
b 8 d 16 f 7

9
a $43.25 b $62.50 c $62.25

10
a $39 337 c $3749
b 176 d $105

11
a 4 children b 2 pensioners

12
Hands on. Two examples below:
- 79 lollies and 5 friends
- 139 lollies and 9 friends

13


14
a False c True e True g True
b True d False f False h True

15
Hands on. (Possible answers)
a No b Yes c No d Yes

UNIT 29

1
a 27 d 1 g 45 j 145
b 39 e 12 h 28 k 12
c 23 f 16 i 25 l 17

2
a 3 + 7 × 3 = 24 because multiplication is done before addition.
b (3 + 7) × 3 = 30 because all bracket work is done first.
c 3 × (7 + 4) = 33 because all bracket work is done first.
d 13 + 3 × 7 = 34 because multiplication is done before addition.
e 4 × 12 ÷ 6 = 8 because multiplication and division are done left to right.
f 3 + 3 × 7 – 5 = 19 because multiplication is done before addition or subtraction.
g 3 + 21 ÷ 3 – 6 = 4 because division is done before addition or subtraction.

3
Hands on.

4
Hands on.

5
a $\frac{8}{10}$ or $\frac{4}{5}$ e $\frac{3}{6}$ i $\frac{1}{3}$ m $5\frac{8}{10}$
b $\frac{9}{10}$ f $\frac{1}{5}$ j $\frac{3}{8}$ n $3\frac{3}{4}$
c $\frac{7}{10}$ g $\frac{2}{8}$ or $\frac{1}{4}$ k $\frac{2}{4}$ o $4\frac{4}{8}$
d $\frac{7}{8}$ h $\frac{2}{8}$ l $\frac{4}{5}$ p $4\frac{4}{5}$

6
a $\frac{2}{4}$ c $\frac{2}{10}$ e $\frac{2}{8}$ g $\frac{3}{8}$ i $\frac{6}{9}$
b $\frac{6}{12}$ d $\frac{2}{12}$ f $\frac{3}{12}$ h $\frac{4}{12}$ j $\frac{9}{12}$

7
a $\frac{1}{12}$ c $\frac{5}{12}$ e 2
b $\frac{9}{12}$ d $\frac{7}{12}$ f 12

8
a $\frac{2}{4}$ e $\frac{3}{8}$ i $1\frac{1}{4} = \frac{5}{4}$
b $\frac{7}{8}$ f $\frac{1}{4}$ j $1\frac{3}{10} = \frac{13}{10}$
c $\frac{3}{8}$ g $\frac{3}{8}$ k $1\frac{1}{10} = \frac{11}{10}$
d $\frac{5}{8}$ h $\frac{2}{10}$ l $1\frac{1}{10} = \frac{11}{10}$

9
a


b


c


d


10
a 1554 d 13
b $1680 e 136 km
c 16 739 f 268 800 m

11
Port Macquarie

12
Hands on. On example below:

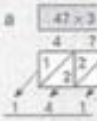
Day	Hours	Start	Finish
Mon.	5 hr 15 min.	9:05 am	2:20 pm
Tues.	6 hr 30 min.	10:10 am	4:40 pm
Thur.	7 hr 23 min.	8:30 am	3:57 pm
Sat.	8 hr 57 min.	7:45 am	4:42 pm

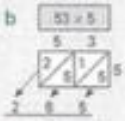
13
a c e g
b d f h

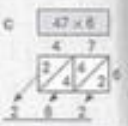
14
a 4 c 3 e 6 g 5
b 2 d 2 f 8 h 6

15
no

UNIT 30

1
a


b


c


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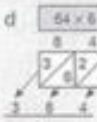

e


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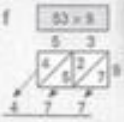
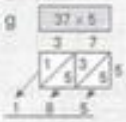
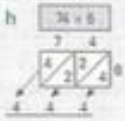


g


h


NEWMANS PROMPTS

Read the question twice. If you don't know a word, leave it out

Work out together what the question is asking you to do. Circle important bits

Plan how you are going to work out the answer.

Write down all of your working out and check your answer with another strategy

Now, write down your answer to the question separately.