RICH MATHEMATICAL TASK BOOKLET



NUMBER. Multiplication & Division

YEAR 2

**Copy Masters** 



**Bobbie and Jodie Hunter** 

Chaewon and Ali are playing with tiles. They have 12 square tiles that are the same. They make a grid so the tiles join together, can you make a grid with your tiles so that they are joined together?

Can you draw the pattern you have made with your tiles?

Have a go at drawing these grids:

A grid that is 2 by 10

A grid that is 5 by 3

A grid that is 3 by 7

A grid that is 6 by 4

# Task 1 (independent)

Tia has 32 shells and four bags.

What are the different ways that she could put the shells into the bags?

Can you record your ideas using drawing and number sentences?

#### Task 2

How many dots are there?

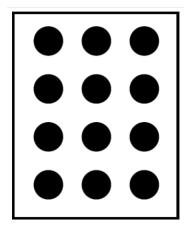
Draw a picture of the array.

Record number sentences to match the array and show how you know how many dots there are.

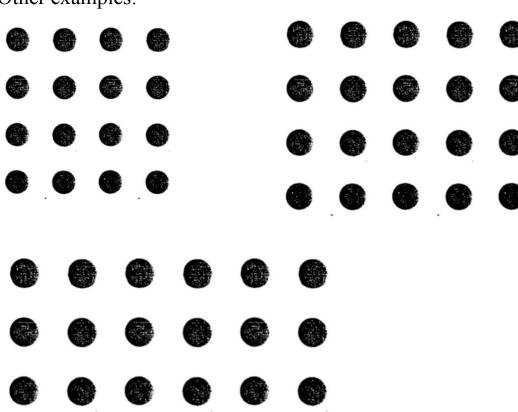
# Task 2 (dot examples)

Examples of dot cards:

Three by four array



# Other examples:



# Task 2 (independent)

Can you make these arrays using counters and draw them?

Record matching number sentences.

- 7 by 4
- 5 by 8
- 8 by 6
- 10 by 5

Amanda Bean loves to count. At the sweet shop, this is what she sees.

7 lollipop stands with 5 lollipops on each.

How many lollipops are there altogether?

4 trays with 8 cupcakes on each tray.

How many cupcakes are there altogether?

6 boxes with 7 packets of skittles in each box.

How many skittles are there altogether?

# **Task 3 (independent)**

Amanda Bean loves to count. At the sweet shop, this is what she sees.

Four lollipop stands with 5 lollipops on each.

How many lollipops are there altogether?

Six trays with 4 cupcakes on each tray.

How many cupcakes are there altogether?

Eight boxes with 3 packets of skittles in each box.

How many skittles are there altogether?



Amanda Bean has been a busy girl. She been making putiputi with her beans.

If she puts 9 blue beans in each putiputi and she makes 3 putiputi, how many blue beans does she use altogether?

If she puts 5 yellow beans in each putiputi and she makes 8 putiputi, how many yellow beans does she use altogether?

If she puts 9 red beans in each putiputi and she makes 8 putiputi, how many red beans does she use altogether?

## **Task 4 (independent)**

Amanda Bean has been a busy girl. She been making putiputi with her beans.

If she puts 9 blue beans in each putiputi and she makes 4 putiputi, how many blue beans does she use altogether?

If she puts 5 yellow beans in each putiputi and she makes 6 putiputi, how many yellow beans does she use altogether?

If she puts 7 red beans in each putiputi and she makes 7 putiputi, how many red beans does she use altogether?

#### Task 5

Which number sentences are true or false:

$$4 + 4 + 4 + 4 + 4 = 4 \times 5$$

$$7 \times 8 = 7 + 7 + 7$$

$$6 \times 3 = 6 + 6 + 6$$

$$9 + 9 + 9 = 9 \times 4$$

What do you notice?

Make a conjecture and use the material to explore and prove the conjecture.

## **Task 5 (independent)**

Sepi likes to collect pinecones and put them in rows to count them.

If there are 3 rows of pinecones and 8 pinecones in each row. How many pinecones are there altogether?

If there are 6 rows of pinecones and 6 pinecones in each row. How many pinecones are there altogether?

If there are 7 rows of pinecones and 9 pinecones in each row. How many pinecones are there altogether?

Amanda Bean and Leilani are sharing 24 stickers. If they shared them fairly, how many would they each get?

Show how you can solve the task in different ways.

If Sonny joined them as well, how many would they each get?

Show how you can solve the task in different ways.

If there were four friends in total, how many would they each get?

Show how you can solve the task in different ways.

## **Task 6 (independent)**

Amanda Bean and Leilani are sharing 16 stickers. If they shared them fairly, how many would they each get?

Draw how you solved the task using an array.

If there were 4 friends to share the 16 stickers, how many would they each get?

Draw how you solved the task using an array.

Amanda Bean and Leilani are sharing 18 stickers. If they shared them fairly, how many would they each get?

Draw how you solved the task using an array.

If there were 3 friends to share the 18 stickers, how many would they each get?

Draw how you solved the task using an array.

There are 30 tamariki in the Kapa Haka group. Whaea Mere wants them to sit in six equal groups. How many tamariki will be in each group?

What if the Whaea Mere only wanted them to sit in two equal groups? How many tamariki would be in each group?

There are 21 tamariki in the music group. Each tamariki plays an instrument – a shaker, triangle, or drum. The same number of tamariki play each instrument.

How many tamariki play each instrument?

# **Task 7 (independent)**

There are 35 tamariki in the Kapa Haka group. Whaea Mere wants them to sit in five equal groups.

How many tamariki will be in each group?

There are 27 tamariki in the music group. Each tamariki plays an instrument – a shaker, triangle, or drum. The same number of tamariki play each instrument.

How many tamariki play each instrument?

Tomasi has made 36 topoi. He wants to share them with his family and give them 3 each. How many family members can he give topoi?

How many family members could Tomasi share his topoi with if he decides to give them 4 each instead?

How many family members could Tomasi share his topoi with if he decides to give them 6 each instead?

## **Task 8 (independent)**

Tomasi has 14 topoi. He wants to share them with his friends and give them 2 each. How many friends can he share them with?

Tomasi has 25 topoi. He wants to share them with his friends and give them 5 each. How many friends can he share them with?

Tomasi has 28 topoi. He wants to share them with his friends and give them 4 each. How many friends can he share them with?

### Task 9

Ali has \$30 in five dollar notes. How many notes does he have?

Draw how you solved the problem.

Ali has 33 marbles. He wants to give his friends 3 marbles each. How many friends can he give marbles to?

Record how you solved the problem.

## Task 9 (independent)

Ali has \$24 in two dollar coins. How many coins does he have?

Record how you solved the problem.

Ali has \$20 in five dollar notes. How many notes does he have?

Record how you solved the problem

Ali has 18 marbles. He wants to give his friends 6 marbles each. How many friends can he give marbles to?

Record how you solved the problem.

Ali has 20 marbles. He wants to give his friends 4 marbles each. How many friends can he give marbles to?

Draw how you solved the problem.

### Task 10

Can you make these arrays using counters and draw them?

Record number sentences that use multiplication and division to match each one.

6 by 8

7 by 5

9 by 6

8 by 7

# Task 10 (independent)

Sarah has 32 marbles.

Help her arrange them into rows that have the same amount in each.

How many rows can you make?

How many marbles are in each row?

Record your ideas using drawings and write the number sentences to match.

### Task 11 (optional task)

Shelley is decorating her birthday cake with her Dad with jellybeans.

First her Dad divides the cake into 2 sections.

Shelley has 22 jellybeans which she carefully shares fairly on each section.

How many jellybeans does she put on each section?

What fraction of the jellybeans does she put on each section?

Shelley is decorating her birthday cake with her Dad with jellybeans.

First her Dad divides the cake into 4 sections.

Ade has 28 jellybeans which she carefully shares fairly on each section.

How many jellybeans does she put on each section?

What fraction of the jellybeans does she put on each section?

## Task 11 (independent)

Shelley is decorating her birthday cake with her Dad with jellybeans.

First her Dad divides the cake into 2 sections.

Shelley has 16 jellybeans which she carefully shares fairly on each section.

How many jellybeans does she put on each section?

What fraction of the jellybeans does she put on each section?

Shelley is decorating her birthday cake with her Dad with jellybeans.

First her Dad divides the cake into 4 sections.

Shelley has 20 jellybeans which she carefully shares fairly on each section.

How many jellybeans does she put on each section?

What fraction of the jellybeans does she put on each section?

# Task 12 (optional task)

Which number sentences are true or false?

$$10 \times 4 = 10 + 10 + 10 + 10$$

$$8 \div 2 = 6$$

$$10 = 2 \times 5$$

$$\frac{1}{2}$$
 of  $8 = 2$ 

$$3 + 3 + 3 + 3 + 3 + 3 = 3 \times 5$$

$$\frac{1}{2}$$
 of 20 = 10

$$20 \div 10 = 2$$

$$200 \div 100 = 2$$

$$\frac{1}{2}$$
 of  $100 = 200$