

Monday 15th June

Year 5/6: Using Ratio Language

Introduction

What would the 20th shape in the pattern be?



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What would the 20th shape in the pattern be?



A circle

Varied Fluency 1

Tick the statements which are correct.



For every triangle and 2 circles, there are 3 squares.

For every triangle there are 2 squares.

For every 2 circles there will be 1 triangle.

Varied Fluency 1

Tick the statements which are correct.



For every triangle and 2 circles, there are 3 squares. ✓

For every triangle there are 2 squares.

For every 2 circles there is 1 triangle. ✓

Varied Fluency 2

True or false?



For every triangle there are 2 circles.

Varied Fluency 2

True or false?

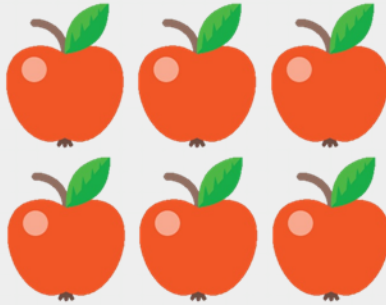


For every triangle there are 2 circles.

True

Varied Fluency 3

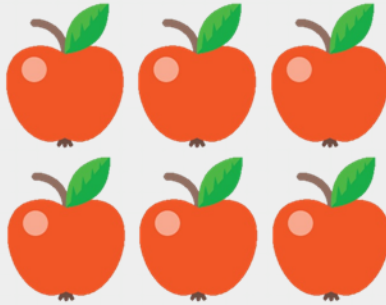
Complete the sentence.



There are 6 _____ for every 5 _____.

Varied Fluency 3

Complete the sentence.

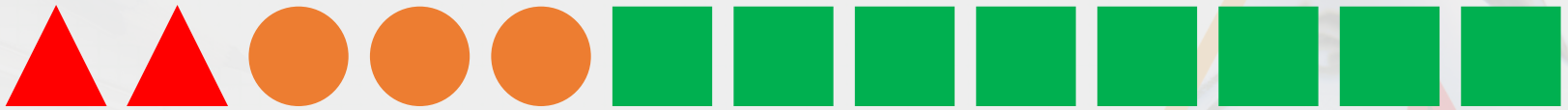


There are 6 apples for every 5 oranges .

Varied Fluency 4

Fill in the missing numbers.

There are 2 triangles for every 8 squares.

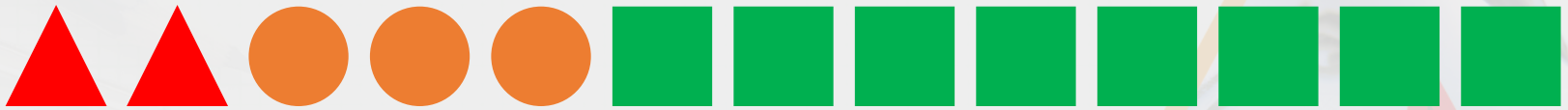


If there is 1 , there will be .

Varied Fluency 4

Fill in the missing numbers.

There are 2 triangles for every 8 squares.



If there is 1 , there will be 4 .

Reasoning 1

Becky has different coloured counters.

There are 2 blue counters for every 8 green counters.

Becky says,



If there were just 1 blue counter, there would be 6 counters in total.

Is she correct? Explain how you know.

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Becky is incorrect because...

Reasoning 1

Becky has different coloured counters.

There are 2 blue counters for every 8 green counters.

Becky says,



If there were just 1 blue counter, there would be 6 counters in total.

Is she correct? Explain how you know.

Becky is incorrect because if there was 1 blue counter, there would be 4 green counters. $1 + 4 = 5$.

Problem Solving 1

Eesa has a bag of shopping containing strawberries and oranges.

There are 12 pieces of fruit altogether.



Write 3 different sentences which explain the possible ratios of the fruit.

Problem Solving 1

Eesa has a bag of shopping containing strawberries and oranges.

There are 12 pieces of fruit altogether.



Write 3 different sentences which explain the possible ratios of the fruit.

Various answers that add up to 12, for example:

1 and 11; 2 and 10; 3 and 9

Reasoning 2

Harrison and Tobias are looking at the relationship between strawberries and lemons.



Harrison thinks that if there was one strawberry, there would be 2 lemons.

Tobias thinks that if there was 1 strawberry, there would be 3 lemons.

Who is correct? Explain how you know.

Reasoning 2

Harrison and Tobias are looking at the relationship between strawberries and lemons.



Harrison thinks that if there was one strawberry, there would be 2 lemons.

Tobias thinks that if there was 1 strawberry, there would be 3 lemons.

Who is correct? Explain how you know.

Tobias is correct because...

Reasoning 2

Harrison and Tobias are looking at the relationship between strawberries and lemons.



Harrison thinks that if there was one strawberry, there would be 2 lemons.

Tobias thinks that if there was 1 strawberry, there would be 3 lemons.

Who is correct? Explain how you know.

Tobias is correct because there are 3 strawberries for every 9 lemons, so if there were 1 strawberry, there would be 3 lemons.

Year 5 and Year 6 Developing

2a. True or false?



For every circle there are 2 triangles.



6 VF

2b. True or false?



For every 3 triangles there are 5 circles.



6 VF

3a. Complete the sentence below.



There are 5 _____ for every 3 _____.



6 VF

3b. Complete the sentence below.





There are 4 _____ for every 5 _____.



6 VF

4a. Fill in the missing numbers.



There is 1  for every .

4b. Fill in the missing numbers.



There are 4  for every .

1a. Iqra has some fruit.



She says,



There are 2 pears for every 4 apples.

Is she correct? Explain how you know.



6 R

1b. Emmie has some toys.



She says,



There are 4 balls for every 3 ducks.

Is she correct? Explain how you know.



6 R

2a. Jaiden has a bag of chocolate and strawberry sweets.

There are 10 sweets altogether.

If there are 3 chocolate sweets, write a sentence to show the ratio of chocolate to strawberry sweets.



2b. Isaac has a bag of orange and lime sweets.

There are 8 sweets altogether.

If there are 2 orange sweets, write a sentence to show the ratio of orange to lime sweets.



Year 6 Expected

5a. Tick the statements which are correct.



- A. For every triangle and square, there are 2 circles.
- B. For every triangle there are 2 squares.
- C. For every 2 circles there is 1 triangle.



6 VF

5b. Tick the statements which are correct.



- A. For every triangle there is 1 circle and 1 square.
- B. For every triangle there are 2 circles.
- C. For every 2 triangles there are 2 squares.



6 VF

6a. True or false?



For every square there are 2 hearts.



6 VF

6b. True or false?



For every heart there are 2 squares.



6 VF

7a. Complete the sentence below.



There are 7 _____ for every 3

_____.



7b. Complete the sentence below.



There is 1 _____ for every 2

_____.



4a. Pippa has a bag of balloons.

There are 3 blue balloons for every 6 green balloons.

She says,



If there was just 1 blue balloon, there would be 4 balloons in total.

Is she correct? Explain how you know.



6 R

4b. Millie has a bag of sweets.

There are 6 pink sweets for every 8 orange sweets.

She says,



If there were 3 pink sweets, there would be 5 sweets in total.

Is she correct? Explain how you know.



6 R

5a. Jake has a bag of shopping containing apples and pears.

There are 14 pieces of fruit altogether.



Write 3 different sentences which show the possible ratios of the fruit.

5b. Yusuf has a bag of shopping containing bananas and plums.

There are 20 pieces of fruit altogether.



Write 3 different sentences which show the possible ratios of the fruit.

Year 6 Greater Depth

9a. Tick the statement which is correct.



A. If there are 9 triangles, there will be 12 squares and 15 hearts.

B. If there are 6 triangles, there will be 8 squares and 10 hearts.

C. If there is 1 triangle, there will be 1 square and 2 hearts.



6 VF

9b. Tick the statements which are correct.



A. If there are 8 triangles, there will be 18 hearts and 16 squares.

B. If there are 8 triangles, there will be 24 hearts and 16 squares.

C. If there is one triangle, there will be 3 hearts and 2 squares.



6 VF

10a. True or false?



If there are 24 lemons, there will be 64 oranges and 32 raspberries.



6 VF

10b. True or false?



If there are 9 oranges, there will be 8 lemons and 12 raspberries.



6 VF

11a. Complete the sentence below.



If there are 12 pentagons, there will be _____ triangles.

11b. Complete the sentence below.



If there is 1 pentagon, there will be _____ circles.

7a. Arlo has some fruit to the ratio of 1 lemon for every 4 limes and 3 satsumas.

He says,



If I have 12 lemons I will have 16 limes and 15 satsumas.

Is he correct? Explain how you know.



6 R

7b. Chen has some fruit to the ratio of 2 bananas for every 3 grapes and 4 apples.

He says,



If I have 20 bananas I will have 23 grapes and 24 apples.

Is he correct? Explain how you know.



6 R

8a. Euan has some red, blue and yellow counters.

There are 4 blue counters for every red counter, and 16 counters altogether.

Write all the possible sentences to show how many of each counter Euan may have.

8b. Toby has some red, blue and yellow counters.

There are 5 blue counters for every 2 red counters, and 25 counters altogether.

Write all the possible sentences to show how many of each counter Toby may have.