

Varied Fluency

Step 11: Correspondence Problems

National Curriculum Objectives:

Mathematics Year 4: (4C8) [Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as \$n\$ objects are connected to \$m\$ objects](#)

Differentiation:

Developing Questions to support identifying the correspondence between n objects and m objects. Includes 2, 3, 4, 5 and 8 times table with some pictorial support.

Expected Questions to support identifying the correspondence between n objects and m objects. All table facts with some pictorial support.

Greater Depth Questions to support identifying the correspondence between n objects and m objects. All table facts with no pictorial support.

More [Year 4 Multiplication and Division](#) resources.

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Correspondence Problems

1a. One box contains 3 types of teddy and 4 different balls.



How many combinations of teddy and ball are there? Circle the correct answer.



12

15

20

VF

Correspondence Problems

1b. One box contains 4 different sizes of fish cans and 2 different flavours of soup.



How many combinations of fish and soup are there? Circle the correct answer.



8

10

12

VF

2a. True or false? There are 10 combinations of cake flavours and toppings. Show your working.

Cake flavour	Toppings
1. vanilla 2. chocolate	1. milk chocolate chips 2. white chocolate chips 3. banana flakes 4. sprinkles 5. cherry



VF

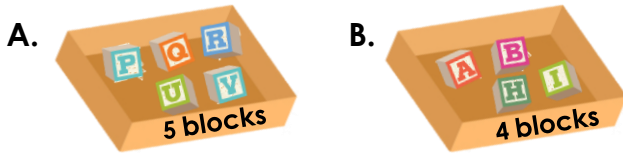
2b. True or false? There are 30 combinations of books between Box 1 and Box 2. Show your working.

Box 1	Box 2
1. adventure story 2. comic 3. thriller 4. newspaper 5. fantasy story 6. information book	1. magazine 2. warning story 3. fairy tale 4. atlas



VF

3a. There are two boxes of blocks.



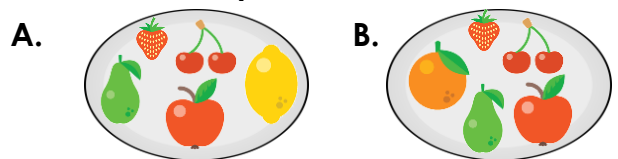
How many combinations of letters can be made?
Complete the calculation below to show the total number of combinations.



$$\square \times \square = \square$$

VF

3b. There are two plates of fruit.



How many combinations of fruits can be made?
Complete the calculation below to show the total number of combinations.



$$\square \times \square = \square$$

VF

4a. Tick the correct number of possible combinations.

Flowers	Dress
1. rose 2. sunflower 3. daisy 4. poppy	



7

12

15

VF

4b. Tick the correct number of possible combinations.

Pizza size	Pizza topping
small	1. onion 2. sweetcorn 3. peppers 4. olives 5. chicken 6. spicy beef 7. Tuna
medium	
large	



14

21

28

VF

Correspondence Problems

Correspondence Problems

5a. A case contains 3 pencils and some pens. There are 21 possible combinations of pens and pencils.



Circle the number of pens in the box.



7

8

9

VF

5b. One box contains 3 dresses and some scarves. There are 36 possible combinations of dresses and scarves.



Circle the number of scarves in the box.



11

12

13

VF

6a. True or false? There are 12 combinations of pizza bases and toppings. Show your working.

Bases	Toppings
deep pan thin and crispy stuffed crust	pepperoni onion sweetcorn chicken pepper mushroom



VF

6b. True or false? There are 32 combinations of toys between Box 1 and Box 2. Show your working.

Box 1	Box 2
doll teddy bear football jigsaw car rubber duck	board game robot train boat rattle building blocks



VF

7a. There are two boxes of marbles.

A.



B.



How many combinations of colours can be made?

Complete the calculation below to show the total number of combinations.



$$\square \times \square = \square$$

VF

7b. There are two jars of sweets.

A.



B.



How many combinations of sweets can be made?

Complete the calculation below to show the total number of combinations.



$$\square \times \square = \square$$

VF

8a. Tick the correct number of possible combinations.

shoes	socks
trainers boots sandals wellies slippers	spotty stripy pink green yellow silver



29

33

30

VF

8b. Tick the correct number of possible combinations.

curtain length	curtain colour
137 cm 182 cm 228 cm 274 cm	grey blue green purple orange cream white



11

21

28

VF

Correspondence Problems

Correspondence Problems

9a. One box contains 4 flavours of lollies and 5 different toffees.



Circle the combinations that can be made if 6 types of sweets are added.



- 110 100 120

VF

9b. One box contains 4 types of balls and 7 different rackets.



Circle the combinations that can be made if 5 coloured T-shirts are added.



- 140 130 150

VF

10a. True or false? There are more than 90 combinations of pizza bases and toppings. Show your working.

Bases	1 st Topping	2 nd Topping
deep pan thin and crispy stuffed crust	pepperoni chicken spicy beef tuna	onion sweetcorn peppers mushroom olives basil



VF

10b. True or false? There are less than 100 combinations of sandwiches. Show your working.

Bread	Filling 1	Filling 2
brown white baguette seeded	ham cheese tuna beef turkey	tomato lettuce cheese cucumber onion



VF

11a. There are three boxes of toys.

- A. train ball doll car boat
 B. teddy robot
 C. train teddy doll car boat

How many combinations of toys can be made?



$$\square \times \square \times \square = \square$$

VF

11b. There are three packets of stickers.

- A. blue green yellow purple orange
 B. silver gold orange
 C. silver green yellow

How many combinations of colours can be made?



$$\square \times \square \times \square = \square$$

VF

12a. Complete the table and tick the correct number of possible combinations.

Fish 1	Fish 2	Fish 3
tetra guppy catfish angel fish	?	snail minnow barb



- 15 48 54

VF

12b. Complete the table and tick the correct number of possible combinations.

Fruit 1	Fruit 2	Fruit 3
?	apple banana pear mango grape orange	kiwi melon peach



- 34 36 42

VF

Varied Fluency Correspondence Problems

Developing

- 1a. 12 combinations
- 2a. True: $2 \times 5 = 10$ combinations
- 3a. $5 \times 4 = 20$ combinations
- 4a. 12 combinations

Expected

- 5a. 7 pens
- 6a. False: $3 \times 6 = 18$ combinations, not 12
- 7a. $5 \times 8 = 40$ combinations
- 8a. 30 combinations

Greater Depth

- 9a. 120 combinations
- 10a. True: $4 \times 4 \times 6 = 96$ combinations
- 11a. $5 \times 2 \times 5 = 50$ combinations
- 12a. There are 4 fish missing from column 2. The correct number of combinations is 48.

Varied Fluency Correspondence Problems

Developing

- 1b. 8 combinations
- 2b. False: $4 \times 6 = 24$ combinations, not 30
- 3b. $5 \times 5 = 25$ combinations
- 4b. 21 combinations

Expected

- 5b. 12 scarves
- 6b. False: $6 \times 6 = 36$ combinations, not 32
- 7b. $9 \times 7 = 63$ combinations
- 8b. 28 combinations

Greater Depth

- 9b. 140 combinations
- 10b. False: $4 \times 5 \times 5 = 100$ combinations
- 11b. $5 \times 3 \times 3 = 45$ combinations
- 12b. There are 2 fruits missing from column 2. The correct number of combinations is 36.