

Ratio Strategies

Seed Packets

AC

EA

AA

AM

AP

I am learning to solve simple ratio problems by repeated copying.

Exercise 1

➤ Complete the questions below:

1. A seed packet has yellow and orange marigold seeds in the ratio of one yellow seed to 3 orange seeds (1:3).

Complete the table to show how many of each coloured seed there will be in these numbers of packets:

Packets	1	2	4	6	8	10	12	15	20	24
Yellow	1	2								24
Orange	3	6		18			36			

2. Cordial is mixed with water in the ratio 1 part cordial to 4 parts water (1:4).

Complete the table to show how much water and cordial is needed for the number of jugs required:

Jugs	1	2	4	6	8	10	12	15	20	24
Cordial	1	2			8					24
Water	4	8					48			

3. Tuna and mayonnaise are mixed to make tuna salad in the ratio 3 parts tuna to 2 parts mayonnaise (3:2).

Complete the table to show how much tuna and mayonnaise is needed for the number of sandwiches required:

Sandwiches	1	2	3	4	5	10	15	20	30	50
Tuna	3	6			15					150
Mayonnaise	2	4					30			

4. Sam and Kate sent their friends some text messages. Sam sent 2 messages for every 5 that Kate sent. They kept this rate constant for several hours.

(a) Write this as a ratio Sam : Kate _____

(b) Complete the table to show how many messages each person sent:

Hour	1	2	4	5	7	9	10
Sam							
Kate							

5. James and Rangi did some gardening for an old lady who lives on their street. James did less work than Rangi, so the lady paid James \$7 per hour and Rangi earned \$10 per hour.
- (a) Write their hourly pay as a ratio James : Rangi = _____
- (b) Write their hourly pay as a ratio Rangi : James = _____
- (c) Complete the table to show how much money they could earn:

Hours worked	1	2	4	5	7	9	10
James							
Rangi							

6. Rangi's lawnmower takes a mixture of petrol and oil in the ratio 7:3. Complete the table to show how much of each is needed for the following number of litres of mixture:

Litres	1	2	3	4	7	9	10
Petrol (millilitres)	700						
Oil (millilitres)	300						

7. Amy buys some packets of sweet pea seeds. Each packet contains 3 pink, 7 purple, and 5 blue seeds. Write this as a ratio.

Complete the table to show how many of each coloured flower Amy will get for each number of packets:

Packets	1	2	5	6	10	12	15
Pink	3						
Purple							
Blue	5						

8. The City Council collects rubbish bags from houses, factories and shops in a ratio of 2:5:3. Someone has partly filled out a record sheet for the number of bags collected. Complete the table to show the number of bags of rubbish collected from each source?

Houses	2		10			20		
Factories		10		30				
Shops	3	6			30		36	45
Total number of places	10							

Seed Packets Answers

1)

Packets	1	2	4	6	8	10	12	15	20	24
Yellow	1	2	4	6	8	10	12	15	20	24
Orange	3	6	12	18	24	30	36	45	60	72

2)

Jugs	1	2	4	6	8	10	12	15	20	24
Cordial	1	2	4	6	8	10	12	15	20	24
Water	4	8	16	24	32	40	48	60	80	96

3)

Sandwiches	1	2	3	4	5	10	15	20	30	50
Tuna	3	6	9	12	15	30	45	60	90	150
Mayonnaise	2	4	6	8	10	20	30	40	60	100

4) a. 2:5

b.

Hour	1	2	4	5	7	9	10
Sam	2	4	8	10	14	18	20
Kate	5	10	20	25	35	45	50

5) a. 7:10

b. 10:7

c.

Hours worked	1	2	4	5	7	9	10
James	7	14	28	35	49	63	70
Rangi	10	20	40	50	70	90	100

6)

Litres	1	2	3	4	7	9	10
Petrol (millilitres)	700	1400	2100	2800	4900	6300	7000
Oil (millilitres)	300	600	900	1200	2100	2700	3000

7)

Packets	1	2	5	6	10	12	15
Pink	3	6	15	18	30	36	45
Purple	7	14	35	42	70	84	105
Blue	5	10	25	30	50	60	75

8)

Houses	2	4	10	12	20	20	24	30
Factories	5	10	25	30	50	50	60	75
Shops	3	6	15	18	30	30	36	45
Total number of places	10	20	50	60	100	100	120	150