

# Outcome 3 - Ratio Calculations

## Bronze example

**Examples...**

boys	girls
1	4
5	20

The ratio of boys to girls is 1 : 4.  $\times 5$

If there are 5 boys, how many girls are there?

## Silver example

**Examples...**

boys	girls
2	3
10	15

The ratio of boys to girls is 2 : 3.  $\times 5$

If there are 10 boys, how many girls are there?

## Gold example

**Examples...**

boys	girls
6	7
138	161

The ratio of boys to girls is 6 : 7.  $\times 23$

If there are 138 boys, how many girls are there?

$$\begin{array}{r} 23 \\ 6 \overline{) 138} \\ \underline{12} \phantom{0} \\ 18 \\ \underline{18} \\ 0 \end{array}$$

## Bronze Questions

- 1 Boys : Girls = 1 : 4  
5 boys, how many girls?
- 2 Men : Women = 1 : 2  
14 men, how many women?
- 3 Teachers : Pupils = 1 : 9  
6 teachers, how many pupils?
- 4 Violins : Cellos = 5 : 1  
15 violins, how many cellos?
- 5 Doctors : Nurses = 1 : 6  
5 doctors, how many nurses?
- 6 Buses : People = 1 : 20  
5 buses, how many people?
- 7 Hands : Fingers = 1 : 5  
8 hands, how many fingers?
- 8 Lorries : Cars = 1 : 8  
6 lorries, how many cars?
- 9 Guitars : Bass = 3 : 1  
10 bass, how many guitars?
- 10 Weeks : Days = 1 : 7  
84 days, how many weeks?

## Silver Questions

- 1 Boys : Girls = 4 : 5  
8 boys, how many girls?
- 2 Men : Women = 3 : 4  
12 men, how many women?
- 3 Policemen : Policewomen = 5 : 4  
35 policemen, how many policewomen?
- 4 Chefs : Waiters = 2 : 7  
12 chefs, how many waiters?
- 5 Cars : Buses = 8 : 3  
40 cars, how many buses?
- 6 Houses : Flats = 2 : 9  
16 houses, how many flats?
- 7 Cars : Passengers = 3 : 5  
27 cars, how many passengers?
- 8 Cats : Dogs = 6 : 7  
18 cats, how many dogs?
- 9 Sheep : Cows = 5 : 8  
64 cows, how many sheep?
- 10 Planets : Stars = 3 : 20  
140 stars, how many planets?

## Gold Questions

- 1 Boys : Girls = 4 : 5  
248 boys, how many girls?
- 2 Men : Women = 3 : 4  
201 men, how many women?
- 3 Dance : Pop = 5 : 4  
210 Dance songs, how many pop songs?
- 4 Magicians : Singers = 2 : 7  
136 magicians, how many singers?
- 5 Laptops : Desktops = 8 : 3  
216 laptops, how many desktops?
- 6 Lions : Zebras = 2 : 9  
64 lions, how many zebras?
- 7 Notes : Coins = 3 : 10  
186 notes, how many coins?
- 8 Trains : Planes = 6 : 7  
252 trains, how many planes?
- 9 Diesel : Unleaded = 5 : 8  
416 unleaded, how many diesel?
- 10 Carrots : Peas = 3 : 20  
1120 peas, how many carrots?

## Bronze Answers

- |               |               |
|---------------|---------------|
| 1. 20 girls   | 2. 28 women   |
| 3. 54 pupils  | 4. 3 cellos   |
| 5. 30 nurses  | 6. 150 people |
| 7. 40 fingers | 8. 48 cars    |
| 9. 30 guitars | 10. 12 weeks  |

## Silver Answers

- |                   |                |
|-------------------|----------------|
| 1. 10 girls       | 2. 16 women    |
| 3. 28 policewomen | 4. 42 waiters  |
| 5. 15 buses       | 6. 72 flats    |
| 7. 45 passengers  | 8. 21 dogs     |
| 9. 40 sheep       | 10. 21 planets |

## Gold Answers

- |                  |                 |
|------------------|-----------------|
| 1. 310 girls     | 2. 268 women    |
| 3. 168 pop songs | 4. 476 singers  |
| 5. 81 desktops   | 6. 288 zebras   |
| 7. 620 coins     | 8. 294 planes   |
| 9. 260 diesel    | 10. 168 carrots |