

Ratio - Worksheet

1. In Lucy's class there are 12 boys and 18 girls. Write the ratio of girls:boys in its simplest form.

- a) 12 : 30
- b) 3 : 2
- c) 18 : 12
- d) 2 : 3

2. Gertie has two grandchildren, Jasmine, aged 2, and Holly, aged 4. Gertie divides £30 between them in the ratio of their ages. How much do they each get?

- a) Jasmine £15, Holly £15
- b) Jasmine £15, Holly £7.50
- c) Jasmine £10, Holly £20
- d) Jasmine £2, Holly £4

3. The ratio of men:women working in a company is 3:5. What proportion of the employees are women?

- a) $\frac{3}{5}$
- b) $\frac{3}{8}$
- c) $\frac{5}{8}$
- d) $\frac{5}{3}$

Ratio - Worksheet

4. The ratio of cups of flour:cups of water in a pizza dough recipe is 9:4. A pizza restaurant makes a large quantity of dough, using 36 cups of flour. How much water should they use?

- a) 16 cups
- b) 13 cups
- c) 11 cups
- d) 81 cups

5. The angles in a triangle are in the ratio 3:4:5. Work out the size of each angle.

- a) 30° , 40° and 50°
- b) 22.5° , 30° and 37.5°
- c) 60° , 60° and 60°
- d) 45° , 60° and 75°

6. Paint Pro makes pink paint by mixing red paint and white paint in the ratio 3:4. Colour Co makes pink paint by mixing red paint and white paint in the ratio 5:7. Which company uses a higher proportion of red paint in their mixture?

- a) They are the same
- b) Paint Pro
- c) Colour Co
- d) It is impossible to tell

Ratio - Exam Questions

Q1. The students in Ellie's class walk, cycle or drive to school in the ratio 2:1:4. If 8 students walk, how many students are there in Ellie's class altogether?

- a) 56
- b) 16
- c) 30
- d) 28

Q2. A bag contains counters. 40% of the counters are red and the rest are yellow. Write down the ratio of red counters:yellow counters. Give your answer in the form 1:n.

- a) 1: 4
- b) 4 : 6
- c) 1 : 1.5
- d) 1 : 6

Q3. Rosie and Jim share some sweets in the ratio 5:7. If Jim gets 12 sweets more than Rosie, work out the number of sweets that Rosie gets.

- a) 30
- b) 5
- c) 2.4
- d) 72

Ratio - Exam Questions

Q4. Rahim is saving for a new bike which will cost £480. Rahim earns £1500 per month. Rahim spends his money on bills, food and extras in the ratio 8:3:4. Of the money he spends on extras, he spends 80% and puts 20% into his savings account.

How long will it take Rahim to save for his new bike?

- a) 1 month
- b) 6 months
- c) 3 months
- d) 5 months

Q5. The ratio of milk chocolates:white chocolates in a box is 5:2. The ratio of milk chocolates:dark chocolates in the same box is 4:1.

If I choose one chocolate at random, what is the probability that that chocolate will be milk chocolate?

- a) $\frac{53}{35}$
- b) $\frac{9}{12}$
- c) $\frac{2}{5}$
- d) $\frac{20}{33}$

Ratio - Exam Questions

Q6. In a school the ratio of girls:boys is 2:3.

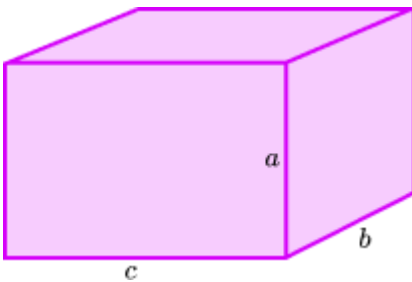
25% of the girls have school dinners.

30% of the boys have school dinners.

What is the total percentage of students at the school who have school dinners?

- a) 55%
- b) 28%
- c) 5%
- d) 140%

Q7. For the cuboid below, $a:b = 3:1$ and $a:c = 1:2$.



Find an expression for the volume of the cuboid in terms of a .

- a) $\frac{2}{3}a^3$
- b) $\frac{1}{3}a^3$
- c) $3a^3$
- d) $6a^3$

Ratio - Exam Questions

Q8. Bill and Ben win some money in their local lottery.

They share the money in the ratio 3:4. Ben decides to give £40 to his sister. The amount that Bill and Ben have is now in the ratio 6:7.

Calculate the total amount of money won by Bill and Ben.

- a) £560**
- b) £70**
- c) £140**
- d) £600**

Q9. On a farm the ratio of pigs:goats is 4:1. The ratio of pigs:piglets is 1:6 and the ratio of goats:kids is 1:2.

What fraction of the animals on the farm are babies?

- a) $\frac{1}{8}$**
- b) $\frac{2}{8}$**
- c) $\frac{86}{105}$**
- d) $\frac{55}{80}$**

Ratio - Answers

Question		Answer
1	In Lucy's class there are 12 boys and 18 girls. Write the ratio of girls:boys in its simplest form. a) 12 : 30 b) 3 : 2 c) 18 : 12 d) 2 : 3	b) 3 : 2
2	Gertie has two grandchildren, Jasmine, aged 2, and Holly, aged 4. Gertie divides £30 between them in the ratio of their ages. How much do they each get? a) Jasmine £15, Holly £15 b) Jasmine £15, Holly £7.50 c) Jasmine £10, Holly £20 d) Jasmine £2, Holly £4	c) Jasmine £10, Holly £20
3	The ratio of men:women working in a company is 3:5. What proportion of the employees are women? a) $\frac{3}{5}$ b) $\frac{3}{8}$ c) $\frac{5}{8}$ d) $\frac{5}{3}$	c) $\frac{5}{8}$

Ratio - Answers

4	The ratio of cups of flour:cups of water in a pizza dough recipe is 9:4. A pizza restaurant makes a large quantity of dough, using 36 cups of flour. How much water should they use? a) 16 cups b) 13 cups c) 11 cups d) 81 cups	a) 16 cups
5	The angles in a triangle are in the ratio 3:4:5. Work out the size of each angle. a) 30°, 40° and 50° b) 22.5°, 30° and 37.5° c) 60°, 60° and 60° d) 45°, 60° and 75°	d) 45°, 60° and 75°
6	Paint Pro makes pink paint by mixing red paint and white paint in the ratio 3:4. Colour Co makes pink paint by mixing red paint and white paint in the ratio 5:7. Which company uses a higher proportion of red paint in their mixture? a) They are the same b) Paint Pro c) Colour Co d) It is impossible to tell	b) Paint Pro

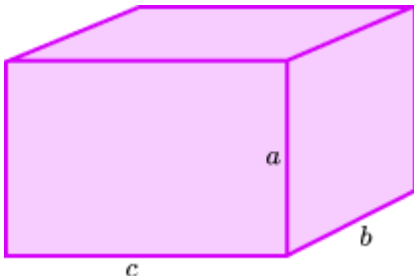
Ratio - Answers

Question		Answer
	Exam Questions	
Q1	The students in Ellie's class walk, cycle or drive to school in the ratio 2:1:4. If 8 students walk, how many students are there in Ellie's class altogether? a) 56 b) 16 c) 30 d) 28	d) 28
Q2	A bag contains counters. 40% of the counters are red and the rest are yellow. Write down the ratio of red counters:yellow counters. Give your answer in the form 1:n. a) 1:4 b) 4:6 c) 1:1.5 d) 1:6	c) 1 : 1.5
Q3	Rosie and Jim share some sweets in the ratio 5:7. If Jim gets 12 sweets more than Rosie, work out the number of sweets that Rosie gets. a) 30 b) 5 c) 2.4 d) 72	a) 30

Ratio - Answers

Question		Answer
Q4	Rahim is saving for a new bike which will cost £480. Rahim earns £1500 per month. Rahim spends his money on bills, food and extras in the ratio 8:3:4. Of the money he spends on extras, he spends 80% and puts 20% into his savings account. How long will it take Rahim to save for his new bike? a) 1 month b) 6 months c) 3 months d) 5 months	b) 6 months
Q5	The ratio of milk chocolates:white chocolates in a box is 5:2. The ratio of milk chocolates:dark chocolates in the same box is 4:1. If I choose one chocolate at random, what is the probability that that chocolate will be milk chocolate? a) $\frac{53}{35}$ b) $\frac{9}{12}$ c) $\frac{2}{5}$ d) $\frac{20}{33}$	d) $\frac{20}{33}$

Ratio - Answers

Question		Answer
Q6	In a school the ratio of girls:boys is 2:3. 25% of the girls have school dinners. 30% of the boys have school dinners. What is the total percentage of students at the school who have school dinners? a) 55% b) 28% c) 5% d) 140%	b) 6 months
Q7	For the cuboid below, $a:b = 3:1$ and $a:c = 1:2$.  Find an expression for the volume of the cuboid in terms of a. a) $\frac{2}{3}a^3$ b) $\frac{1}{3}a^3$ c) $3a^3$ d) $6a^3$	a) $\frac{2}{3}a^3$
Q8	Bill and Ben win some money in their local lottery. They share the money in the ratio 3:4. Ben decides to give £40 to his sister. The amount that Bill and Ben have is now in the ratio 6:7. Calculate the total amount of money won by Bill and Ben. a) £560 b) £70 c) £140 d) £600	a) £560

Ratio - Answers

Question		Answer
Q9	On a farm the ratio of pigs:goats is 4:1. The ratio of pigs:piglets is 1:6 and the ratio of goats:kids is 1:2. What fraction of the animals on the farm are babies? a) $\frac{1}{8}$ b) $\frac{2}{8}$ c) $\frac{86}{105}$ d) $\frac{55}{80}$	c) $\frac{86}{105}$

Do you have KS4 students who need additional support in maths?

Our specialist tutors will help them develop the skills they need to succeed at GCSE in weekly one to one online revision lessons. Trusted by secondary schools across the UK.

Visit thirdspacelearning.com to find out more.