4 MySummary

Check out

You should now be able to ...

Test it ➡ **Questions**

✓ Add and subtract fractions.	6	1 – 2
✓ Multiply and divide fractions.	6	3 – 5
✓ Convert between decimals and fractions.	6	6
✓ Calculate percentage changes.	6	7 – 10
✓ Solve problems involving percentages.	7	11

Language

Language	Meaning	Example
Numerator	The top number in a fraction.	In the fraction $\frac{4}{5}$, the numerator is 4.
Denominator	The bottom number in a fraction.	In the fraction $\frac{4}{5}$ the denominator is 5.
Simplify a fraction	Divide the numerator and denominator by common factors.	$\frac{30}{33}$ simplifies to $\frac{10}{11}$.
Mixed number	A number that is made of a whole number part and a fraction part.	$4\frac{2}{3}$ is a mixed number.
Proportion	A numerical comparison of the size of a part with the size of the whole.	If 4 out of 5 people in a room are girls, then the proportion that are girls is $\frac{4}{5}$.
Percentage	The numerator of a proportion out of 100.	$\frac{4}{5} = \frac{80}{100} = 80\%$
Recurring decimal	A decimal with an infinite number of repeating digits.	$\frac{1}{3} = 0.33333...$ $= 0.\dot{3}$
Terminating decimal	A decimal with a finite number of digits.	$\frac{3}{5} = 0.6$
Improper fraction	A fraction whose numerator is greater than its denominator.	$\frac{11}{8}$ is an improper fraction.

4 MyReview

1 Calculate these and give your answer as a fraction in its simplest form.

a $\frac{3}{8} + \frac{5}{32}$ **b** $\frac{9}{15} - \frac{3}{20}$

c $\frac{1}{4} + \frac{2}{7}$ **d** $\frac{19}{21} - \frac{5}{28}$

2 Calculate these, write your answers as improper fractions.

a $2\frac{3}{4} + 1\frac{1}{7}$ **b** $5\frac{1}{9} - 3\frac{5}{6}$

c $4\frac{1}{6} + 2\frac{1}{8}$ **d** $3\frac{3}{4} - 1\frac{5}{6}$

3 Calculate these, give your answer to 2 dp.

a $\frac{3}{11}$ of £60 **b** $\frac{4}{9}$ of 40 kg

c $1\frac{1}{3}$ of 11 m **d** $2\frac{2}{7}$ of 250 ml

4 Calculate these using a mental or written method, and simplify your answers.

a $12 \times \frac{3}{21}$ **b** $15 \times \frac{7}{20}$

c $\frac{2}{11} \times \frac{9}{20}$ **d** $\frac{9}{10} \times \frac{5}{21}$

5 Calculate and simplify your answers.

a $18 \div \frac{27}{28}$ **b** $\frac{2}{7} \div \frac{3}{14}$

6 Change these fractions into decimals without using a calculator.

a $\frac{3}{20}$ **b** $\frac{7}{35}$

c $\frac{11}{10}$ **d** $\frac{9}{40}$

7 Calculate these percentage changes.

a Increase 80 by 15%

b Decrease 240 by 38%

8 Jamie was paid £900 a month. His pay was increased by 3.2%. How much is he paid now?

9 An antique vase increases in value from £770 to £893.20. What is the percentage increase?

10 A laptop is reduced in price from £750 to £680. What is the percentage reduction?

11 The table shows the number of students in each class and what percentage passed their maths test.

Class	A	B	C
Students	24	20	28
% pass	54%	70%	43%

Which class had the most students passing the test?

What next?

Score	
0 – 4	Your knowledge of this topic is still developing. To improve look at Formative test: 3B-4; MyMaths: 1016, 1017, 1040, 1046, 1047, 1060, 1063, 1073 and 1302
5 – 9	You are gaining a secure knowledge of this topic. To improve look at InvisiPen: 143, 144, 145, 152, 153, 155, 161 and 193
10, 11	You have mastered this topic. Well done, you are ready to progress!