

Check out

You should now be able to ...

✓	Questions	7	8
✓	Add, subtract, multiply and divide fractions.	1, 2	
✓	Convert decimals to fractions and fractions to decimals.		3, 4
✓	Find percentage increases and decreases.		5 - 7
✓	Solve percentage problems using a decimal multiplier.		8, 9
✓	Calculate a repeated percentage increase and decrease.		10, 11

Test it

Questions

7	1, 2
8	3, 4
8	5 - 7
8	8, 9
8	10, 11



Language Meaning Example

Equivalent fractions	Equal fractions with different denominators.	$\frac{1}{2} = \frac{3}{6} = \frac{25}{50}$
Terminating decimal	A decimal with a finite number of digits.	0.25
Recurring decimal	A decimal with an infinite number of digits which repeat in a pattern.	0.12121212... 0.33333...
Percentage increase/decrease	Changes expressed as fractions of 100.	$35\% = \frac{35}{100} = 0.35$
Proportional change	An increase or decrease written as a fraction or % of the original amount.	An increase from 80 to 100 is a proportional increase of $\frac{20}{80} = 25\%$
Decimal multiplier	The decimal equivalent to a % change.	To increase a value by 12% you multiply by 1.12

- Calculate these, writing your answers as improper fractions.
 - $3\frac{3}{5} + 1\frac{2}{7}$
 - $4\frac{7}{9} - 2\frac{1}{4}$
 - $1\frac{7}{12} + 2\frac{4}{15}$
 - $3\frac{7}{10} - 1\frac{11}{12}$
- Calculate these, giving your answers in their simplest form.
 - $8 \times \frac{7}{24}$
 - $\frac{5}{12} \times \frac{9}{25}$
 - $16 \div 9$
 - $\frac{6}{7} \div \frac{15}{28}$
 - $2\frac{1}{3} \times 1\frac{1}{14}$
 - $4\frac{3}{8} \div 1\frac{1}{4}$
- Change these fractions into decimals using division. Give your answer as a recurring decimal if possible.
 - $\frac{7}{9}$
 - $\frac{5}{11}$
 - $\frac{5}{12}$
 - $\frac{6}{7}$
 - $\frac{7}{11}$
 - $\frac{7}{13}$
- Write these recurring decimals as fractions in their simplest form.
 - 0.313131...
 - 0.06
- Calculate these percentage changes.
 - Increase £90 by 4.5%
 - Decrease 1245g by 61%
- Jamie was paid £900 a month. His pay is increased to £960. What is the percentage increase?
- A clock is reduced from £35 to £24.30 in a sale. What is the percentage reduction?
- A laptop is reduced in price by 25% to £540. What was the original price?
- In one year a tree grew 13% to a height of 1.92m. What was its height at the beginning of the year?
- £700 is placed in a savings account that pays 2.3% interest each year. How much is in the account at the end of three years? (assuming no money is removed and no additional money is paid in).
- A car loses 14% of its value each year. What is it worth after 4 years if it was originally worth £13000?

What next?

Score	What next?
0 - 4	Your knowledge of this topic is still developing. To improve look at Formative test: 3C-4; MyMaths: 10:17, 1040, 1047, 1060, 1063, 1066, 1073, 1074, 1302 and 1934
5 - 9	You are gaining a secure knowledge of this topic. To improve look at InvisiPen: 143, 144, 145, 152, 153, 154, 155 and 163
10 - 11	You have mastered this topic. Well done, you are ready to progress!