

Intermediate Check In – 2.01 Fractions

For questions 1-5 give your answers in their simplest form and as a mixed number where appropriate.

1. Work out $\frac{4}{7} \div \frac{5}{8}$.
2. Work out $\frac{3}{8} + \frac{11}{8}$.
3. Work out $1\frac{4}{5} \times 2\frac{2}{7}$.
4. Work out $-\frac{2}{3} + \frac{7}{8} - \frac{1}{4}$.
5. Work out $3\frac{1}{5} \times \frac{3}{8} + 2\frac{2}{3}$.
6. Explain why $\frac{8}{12} \div 2 = \frac{4}{6}$ is incorrect.
7. Marianne buys pizza for 9 people. Each person eats $\frac{4}{5}$ of a pizza. Explain why Marianne must buy 8 pizzas.
8. Explain why $\frac{7}{8} \div \frac{2}{3}$ gives an answer larger than $\frac{7}{8}$.
9. Jo's two cats each eat $2\frac{2}{3}$ tins of cat food each week. How many tins does Jo need to buy for 4 weeks?
10. Caroline has 64 sweets. She gives $\frac{1}{4}$ to Neil, $\frac{3}{8}$ to Wim and 12 sweets to Eddie.
What fraction of the sweets does she have left?

Extension

Convert the following fractions to decimals. What do you notice?

$$\frac{1}{9}, \frac{2}{9}, \frac{3}{9}, \frac{4}{9}, \frac{5}{9}, \frac{6}{9}$$

Investigate using other denominators.



Answers

1. $\frac{32}{35}$

2. $1\frac{3}{4}$

3. $4\frac{4}{35}$

4. $-\frac{1}{24}$

5. $3\frac{13}{15}$

6. It should be multiplied by $\frac{1}{2}$ to give $\frac{4}{12} = \frac{1}{3}$.

7. $\frac{4}{5} \times 9 = \frac{36}{5} = 7\frac{1}{5}$ so round up to 8 whole pizzas.

8. Dividing by $\frac{2}{3}$ is the same as multiplying by $\frac{3}{2}$ or $1\frac{1}{2}$.

9. $2 \times 4 \times 2\frac{2}{3} = \frac{64}{3} = 21\frac{1}{3}$ so round up to 22 cans.

10. $64 - (16 + 24 + 12) = 12$, so the fraction remaining $= \frac{12}{64} = \frac{3}{16}$.

Extension

0.11... 0.22... 0.33... 0.44... 0.55... 0.66...

We'd like to know your view on the resources we produce. By clicking on '[Like](#)' or '[Dislike](#)' you can help us to ensure that our resources work for you. When the email template pops up please add additional comments if you wish and then just click 'Send'. Thank you.

If you do not currently offer this OCR qualification but would like to do so, please complete the Expression of Interest Form which can be found here: www.ocr.org.uk/expression-of-interest

OCR Resources: *the small print*

OCR's resources are provided to support the teaching of OCR specifications, but in no way constitute an endorsed teaching method that is required by the Board, and the decision to use them lies with the individual teacher. Whilst every effort is made to ensure the accuracy of the content, OCR cannot be held responsible for any errors or omissions within these resources.

© OCR 2016 - This resource may be freely copied and distributed, as long as the OCR logo and this message remain intact and OCR is acknowledged as the originator of this work. OCR acknowledges the use of the following content: n/a

Please get in touch if you want to discuss the accessibility of resources we offer to support delivery of our qualifications: resources.feedback@ocr.org.uk



Assessment Objective	Qu.	Topic	R	A	G
AO1	1	Divide simple fractions			
AO1	2	Add simple fractions (proper and improper)			
AO1	3	Multiply mixed numbers			
AO1	4	Add and subtract fractions in more complex calculations			
AO1	5	Multiply and add fractions in more complex calculations			
AO2	6	Explain the method for dividing fractions correctly			
AO2	7	Calculate a fraction of a quantity and interpret the fractional quantity in context			
AO2	8	Interpret a reciprocal or inverse operation			
AO3	9	Solve a problem involving fractional quantities			
AO3	10	Solve a contextual problem involving fractions of quantities and expressing one quantity as a fraction of another			

Assessment Objective	Qu.	Topic	R	A	G
AO1	1	Divide simple fractions			
AO1	2	Add simple fractions (proper and improper)			
AO1	3	Multiply mixed numbers			
AO1	4	Add and subtract fractions in more complex calculations			
AO1	5	Multiply and add fractions in more complex calculations			
AO2	6	Explain the method for dividing fractions correctly			
AO2	7	Calculate a fraction of a quantity and interpret the fractional quantity in context			
AO2	8	Interpret a reciprocal or inverse operation			
AO3	9	Solve a problem involving fractional quantities			
AO3	10	Solve a contextual problem involving fractions of quantities and expressing one quantity as a fraction of another			

Assessment Objective	Qu.	Topic	R	A	G
AO1	1	Divide simple fractions			
AO1	2	Add simple fractions (proper and improper)			
AO1	3	Multiply mixed numbers			
AO1	4	Add and subtract fractions in more complex calculations			
AO1	5	Multiply and add fractions in more complex calculations			
AO2	6	Explain the method for dividing fractions correctly			
AO2	7	Calculate a fraction of a quantity and interpret the fractional quantity in context			
AO2	8	Interpret a reciprocal or inverse operation			
AO3	9	Solve a problem involving fractional quantities			
AO3	10	Solve a contextual problem involving fractions of quantities and expressing one quantity as a fraction of another			

Assessment Objective	Qu.	Topic	R	A	G
AO1	1	Divide simple fractions			
AO1	2	Add simple fractions (proper and improper)			
AO1	3	Multiply mixed numbers			
AO1	4	Add and subtract fractions in more complex calculations			
AO1	5	Multiply and add fractions in more complex calculations			
AO2	6	Explain the method for dividing fractions correctly			
AO2	7	Calculate a fraction of a quantity and interpret the fractional quantity in context			
AO2	8	Interpret a reciprocal or inverse operation			
AO3	9	Solve a problem involving fractional quantities			
AO3	10	Solve a contextual problem involving fractions of quantities and expressing one quantity as a fraction of another			

