Dividing Fractions - Worksheet

Skill

Group A - Dividing two proper fractions together

Divide the fractions below, give your answers in their simplest form.

1) $\frac{1}{5} \div \frac{1}{4} =$

2) $\frac{1}{8} \div \frac{1}{7} =$

3) $\frac{1}{5} \div \frac{2}{3} =$

4) $\frac{1}{7} \div \frac{3}{5} =$

5) $\frac{1}{2} \div \frac{7}{8} =$

6) $\frac{2}{3} \div \frac{5}{8} =$

7) $\frac{7}{9} \div \frac{5}{9} =$

8) $\frac{9}{11} \div \frac{3}{4} =$

9) $\frac{2}{17} \div \frac{3}{8} =$

10) $\frac{18}{19} \div \frac{2}{13} =$

11) $\frac{19}{20} \div \frac{14}{15} =$

12) $\frac{28}{70} \div \frac{60}{90} =$

Group B - Dividing fractions by whole numbers

Divide the fractions below, give your answers in their simplest form.

1) $\frac{1}{2} \div 3 =$

2) $\frac{4}{5} \div 6 =$

3) $\frac{3}{8} \div 3 =$

4) $\frac{5}{9} \div 15 =$

5) $5 \div \frac{2}{3} =$

6) $6 \div \frac{4}{5} =$

7) $8 \div \frac{5}{8} =$

8) $12 \div \frac{4}{7} =$

9) $\frac{1}{2} \div \frac{1}{3} \div \frac{1}{4} =$

10) $4 \div \frac{1}{3} \div \frac{1}{2} =$

11) $\frac{2}{3} \div 8 \div \frac{4}{5} =$

12) $\frac{2}{3} \div \frac{5}{6} \div 7 =$

Group C - Dividing mixed fractions

Divide the fractions below, give your answers in their simplest form.

1) $1\frac{1}{2} \div \frac{1}{3} =$

2) $2\frac{2}{3} \div \frac{1}{5} =$

3) $\frac{4}{5} \div 3\frac{1}{2} =$

4) $\frac{8}{9} \div 7\frac{2}{5} =$

5) $2\frac{1}{2} \div 3\frac{1}{5} =$

6) $4\frac{3}{5} \div 2\frac{4}{7} =$

7) $3\frac{1}{9} \div 7\frac{8}{11} =$

8) $10\frac{2}{3} \div 7\frac{3}{8} =$

9) $9\frac{2}{3} \div \frac{1}{2} \div \frac{1}{4} =$

10) $8\frac{1}{2} \div \frac{2}{3} \div 3\frac{1}{5} =$

11) $4\frac{5}{8} \div 5 \div 9\frac{3}{4} =$

12) $7\frac{2}{7} \div 8\frac{4}{5} \div 6\frac{7}{8} =$

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Dividing Fractions - Worksheet

Applied

1) **(a)** Two fractions, when divided together result in an answer of $\frac{2}{7}$. What could the two possible fractions be?

(b) Two fractions, when divided together result in an answer of $4\frac{2}{9}$. What could the two possible fractions be?

2) **(a)** Nineteen pizzas were eaten at a party. Each guest ate $\frac{1}{4}$ of a pizza. How many people ate pizzas?

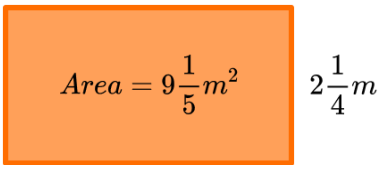
3) **(a)** Work out the missing fraction below:

$$\frac{2}{9} \div ? = \frac{8}{27}$$

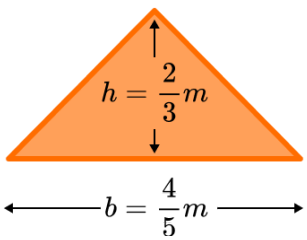
(b) Work out the missing fraction below:

$$\frac{3}{15} \div ? = \frac{7}{10}$$

4) **(a)** A rectangle has an area of $9\frac{1}{5}m^2$ and a width of $2\frac{1}{4}m$. Find the length of the rectangle.



(b) A triangle has a base length of $\frac{4}{5}m$ and height of $\frac{2}{3}m$. Work out the area of the triangle.



Dividing Fractions - Exam Questions

1) **(a)** Work out: $\frac{2}{9} \div \frac{3}{7} =$ ..... **(2)**

(b) Work out: $7\frac{1}{7} \div 5\frac{2}{5} =$ ..... **(2)**

(4 marks)

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2) **(a)** Clarissa has $\frac{9}{10}l$ of fizzy drinks for her party. She is going to fill as many $\frac{1}{12}l$ glasses. What is the maximum number of glasses she can fill? ..... **(2)**

(b) Rather than filling each glass to the top, she decided to half fill each glass. How many glasses can she now fill? ..... **(2)**

(4 marks)

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3) **(a)** A seamstress is cutting pieces of fabric from a roll that is $6\frac{2}{9}m$ long. Each piece of fabric is $\frac{6}{7}m$ long. How many pieces of fabric can she cut from the roll? ..... **(3)**

(3 marks)

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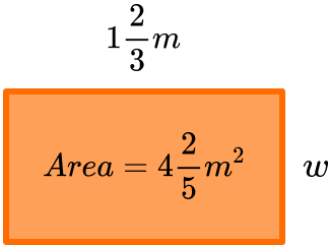
4) **(a)** The area of the rectangle on the right is $4\frac{2}{5}m^2$. The length of the rectangle is $1\frac{2}{3}m$. Work out the width of the rectangle.



..... **(3)**

(b) What is the perimeter of the rectangle? ..... **(3)**

(6 marks)

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Dividing Fractions- Answers

	Question	Answer
	Skill Questions	
Group A	Work out: **1)** $\frac{1}{5} \div \frac{1}{4} =$ **2)** $\frac{1}{8} \div \frac{1}{7} =$ **3)** $\frac{1}{5} \div \frac{2}{3} =$ **4)** $\frac{1}{7} \div \frac{3}{5} =$ **5)** $\frac{1}{2} \div \frac{7}{8} =$ **6)** $\frac{2}{3} \div \frac{5}{8} =$ **7)** $\frac{7}{9} \div \frac{5}{9} =$ **8)** $\frac{9}{11} \div \frac{3}{4} =$ **9)** $\frac{2}{17} \div \frac{3}{8} =$ **10)** $\frac{18}{19} \div \frac{2}{13} =$ **11)** $\frac{19}{20} \div \frac{14}{15} =$ **12)** $\frac{28}{70} \div \frac{60}{90} =$	**1)** $\frac{4}{5}$ **2)** $\frac{7}{8}$ **3)** $\frac{3}{10}$ **4)** $\frac{5}{21}$ **5)** $\frac{4}{7}$ **6)** $\frac{16}{15}$ **7)** $\frac{7}{5}$ **8)** $\frac{12}{11}$ **9)** $\frac{16}{51}$ **10)** $\frac{117}{19}$ **11)** $\frac{57}{56}$ **12)** $\frac{3}{5}$
Group B	Work out: **1)** $\frac{1}{2} \div 3 =$ **2)** $\frac{4}{5} \div 6 =$ **3)** $\frac{3}{8} \div 3 =$ **4)** $\frac{5}{9} \div 15 =$ **5)** $5 \div \frac{2}{3} =$ **6)** $6 \div \frac{4}{5} =$ **7)** $8 \div \frac{5}{8} =$ **8)** $12 \div \frac{4}{7} =$ **9)** $\frac{1}{2} \div \frac{1}{3} \div \frac{1}{4} =$ **10)** $4 \div \frac{1}{3} \div \frac{1}{2} =$ **11)** $\frac{2}{3} \div 8 \div \frac{4}{5} =$ **12)** $\frac{2}{3} \div \frac{5}{6} \div 7 =$	**1)** $\frac{1}{6}$ **2)** $\frac{2}{15}$ **3)** $\frac{1}{8}$ **4)** $\frac{1}{27}$ **5)** $\frac{15}{2}$ **6)** $\frac{15}{2}$ **7)** $\frac{64}{5}$ **8)** 21 **9)** 6 **10)** 24 **11)** $\frac{5}{48}$ **12)** $\frac{4}{35}$

Dividing Fractions - Answers

Group C	Work out:	
	1) $1\frac{1}{2} \div \frac{1}{3} =$	**1)** $\frac{9}{2}$
	2) $2\frac{2}{3} \div \frac{1}{5} =$	**2)** $\frac{40}{3}$
	3) $\frac{4}{5} \div 3\frac{1}{2} =$	**3)** $\frac{8}{35}$
	4) $\frac{8}{9} \div 7\frac{2}{5} =$	**4)** $\frac{40}{333}$
	5) $2\frac{1}{2} \div 3\frac{1}{5} =$	**5)** $\frac{25}{32}$
	6) $4\frac{3}{5} \div 2\frac{4}{7} =$	**6)** $\frac{161}{90}$
	7) $3\frac{1}{9} \div 7\frac{8}{11} =$	**7)** $\frac{308}{765}$
	8) $10\frac{2}{3} \div 7\frac{3}{8} =$	**8)** $\frac{256}{177}$
	9) $9\frac{2}{3} \div \frac{1}{2} \div \frac{1}{4} =$	**9)** $\frac{232}{3}$
	10) $8\frac{1}{2} \div \frac{2}{3} \div 3\frac{1}{5} =$	**10)** $\frac{255}{64}$
	11) $4\frac{5}{8} \div 5 \div 9\frac{3}{4} =$	**11)** $\frac{37}{390}$
	12) $7\frac{2}{7} \div 8\frac{4}{5} \div 6\frac{7}{8} =$	**12)** $\frac{102}{847}$

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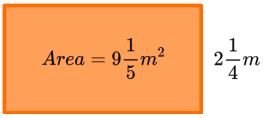
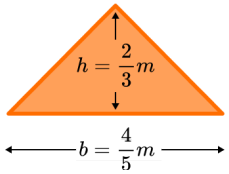
Dividing Fractions - Answers

	Question	Answer
	Applied Questions	
1)	**a)** Two fractions, when divided together result in a quotient of $\frac{2}{7}$. What could the two possible fractions be? **b)** Two fractions, when divided together result in a quotient of $4\frac{2}{9}$. What could the two possible fractions be?	**a)** Answers may vary. One possible answer is $\frac{1}{7} and \frac{1}{2}$ **b)** Answers may vary. One possible answer is $\frac{1}{9} and \frac{1}{38}$
2)	**a)** Nineteen pizzas were eaten at a party. Each guest ate $\frac{1}{4}$ of a pizza. How many people ate pies?	**a)** 76 people ate pies
3)	**a)** Work out the missing number below: $\frac{2}{9} \div ? = \frac{8}{27}$ Work out the missing number below: **b)** $\frac{3}{15} \div ? = \frac{7}{10}$	**a)** $\frac{3}{4}$ **b)** $\frac{2}{7}$
4)	**a)** A rectangle has an area of $9\frac{1}{5}m^2$ and a width of $2\frac{1}{4}m$. Find the length of the rectangle.  **b)** A triangle has a base length of $\frac{4}{5}m$ and height of $\frac{2}{3}m$. Work out the area of the triangle. 	**a)** $\frac{184}{45}m$ **b)** $\frac{8}{30}m^2$ or $\frac{4}{15}m^2$ after simplifying

Dividing Fractions - Mark Scheme

	Question	Answer	
	Exam Questions		
1) (a)	Work out: $\frac{2}{9} \div \frac{3}{7} =$	(a) $\frac{2}{9} \times \frac{7}{3}$ $= \frac{14}{27}$	**(1)** **(1)**
(b)	Work out: $7\frac{1}{7} \div 5\frac{2}{5} =$	(b) $\frac{50}{7} \times \frac{5}{27}$ $= \frac{250}{189}$	**(1)** **(1)**
2) (a)	Clarissa has $\frac{9}{10}l$ of fizzy drinks for her party. She is going to fill as many $\frac{1}{12}l$ glasses. What is the maximum number of glasses she can fill?	(a) $\frac{9}{10} \times \frac{12}{1}$ $= \frac{108}{10}$, so 10 glasses	**(1)** **(1)**
(b)	Rather than filling each glass to the top, she decided to half fill each glass. How many glasses can she now fill?	(b) $\frac{108}{10} \div \frac{1}{2}$ $= \frac{216}{10}$, so 21 glasses	**(1)** **(1)**
3) (a)	A seamstress is cutting pieces of fabric from a roll that is $6\frac{2}{9}m$ long. Each piece of fabric is $\frac{6}{7}m$ long. How many pieces of fabric can she cut from the roll?	(a) $\frac{56}{9} \times \frac{7}{6}$ $= \frac{196}{27} = 7.26$ so she can cut 7 pieces of fabric	**(1)** **(1)**
4) (a)	The area of the rectangle on the right is $4\frac{2}{5}m^2$. The length of the rectangle is $1\frac{2}{3}m$. Work out the width of the rectangle. $1\frac{2}{3}m$ $Area = 4\frac{2}{5}m^2$ w	(a) $4\frac{2}{5} \div 1\frac{2}{3}$ $\frac{22}{5} \times \frac{3}{5}$ $= \frac{66}{25}m$	**(1)** **(1)** **(1)**

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	(b)	What is the perimeter of the rectangle?	(b) $\frac{5}{3} + \frac{5}{3} + \frac{66}{25} + \frac{66}{25}$ $= \frac{646}{75}m$	

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