

## FRACTIONS

Pearson Edexcel - Tuesday 19 May 2020 - Paper 1 (Non-Calculator) Higher Tier

1.

2 Show that

$$2\frac{1}{3} \times 3\frac{3}{4} = 8\frac{3}{4}$$

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(Total for Question 2 is 3 marks)

Pearson Edexcel - Tuesday 21 May 2019 - Paper 1 (Non-Calculator) Higher Tier

2.

9 Work out  $3\frac{1}{2} \times 1\frac{3}{5}$

Give your answer as a mixed number in its simplest form.

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**(Total for Question 9 is 3 marks)**

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Pearson Edexcel - Thursday 8 November 2018 - Paper 2 (Calculator) Higher Tier

3.

12 (a) Write  $\frac{4x^2 - 9}{6x + 9} \times \frac{2x}{x^2 - 3x}$  in the form  $\frac{ax + b}{cx + d}$  where  $a$ ,  $b$ ,  $c$  and  $d$  are integers.

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(3)

(b) Express  $\frac{3}{x+1} + \frac{1}{x-2} - \frac{4}{x}$  as a single fraction in its simplest form.

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(3)

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(Total for Question 12 is 6 marks)

23 The diagram shows a container for grain.

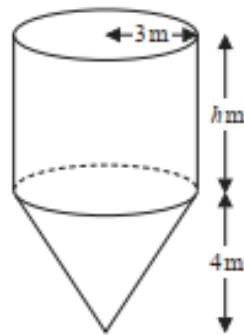


Diagram NOT  
accurately drawn

The container is a cylinder on top of a cone.  
The cylinder has a radius of 3 m and a height of  $h$  m.  
The cone has a base radius of 3 m and a vertical height of 4 m.

The container is empty.  
The container is then filled with grain at a constant rate.

After 5 hours the depth of the grain is 6 metres above the vertex of the cone.  
After 9 hours the container is full of grain.

Work out the value of  $h$ .  
Give your answer as a fraction in its simplest form.  
You must show all your working.

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(Total for Question 23 is 5 marks)

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16. (a) Work out  $\frac{2}{3} + \frac{5}{6}$

Give your fraction in its simplest form.

.....  
(3)

(b) Work out  $2\frac{1}{3} - 1\frac{2}{5}$

.....  
(3)

.....  
(Total 6 marks)

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**Pearson Edexcel - Friday 10 June 2011 - Paper 4 (Calculator) Higher Tier**

**6.**

7. Bob has 120 beads.

The beads are either red or green.

Bob gives  $\frac{3}{4}$  of the beads to his friend.

$\frac{2}{3}$  of the beads Bob now has are red.

Work out how many green beads Bob now has.

.....  
(Total 3 marks)

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Pearson Edexcel - Tuesday 9 November 2010 - Paper 3 (Non-Calculator) Higher Tier

7.

18. (a) Work out  $2\frac{17}{20} - 1\frac{2}{5}$

.....  
(3)

(b) Work out  $2\frac{2}{3} \times 1\frac{3}{4}$

.....  
(3)

.....  
(Total 6 marks)

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Pearson Edexcel - Monday 7 June 2010 - Paper 3 (Non-Calculator) Higher Tier

8.

11. There are 300 people in the cinema.

$\frac{1}{6}$  of the 300 people are boys.

$\frac{3}{10}$  of the 300 people are girls.

The rest of the people are adults.

Work out how many people are adults.

.....  
(Total 4 marks)

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**Pearson Edexcel - Monday 7 June 2010 - Paper 3 (Non-Calculator) Higher Tier**

**9.**

16. Work out  $3\frac{1}{4} \times 2\frac{2}{3}$

Give your answer in its simplest form.

.....  
(Total 3 marks)

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Pearson Edexcel - Thursday 5 November 2009 - Paper 3 (Non-Calculator) Higher Tier

10.

7. (a) Work out  $\frac{3}{8} + \frac{1}{4}$

Give your answer in its simplest form.

.....  
(2)

(b) Work out  $\frac{2}{3} \times \frac{4}{5}$

.....  
(2)

(c) Work out  $423 \times 12$

You must show all your working.

.....  
(3)

.....  
(Total 7 marks)

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OCR GSCE – Thursday 5 November 2020 – Paper 5 (Non-Calculator) Higher Tier

11.



5 Charlie and Jasmine share cartons of apple juice.

Charlie drinks  $\frac{1}{3}$  of a carton every day.

Jasmine drinks  $\frac{2}{5}$  of a carton every day.

Any apple juice left in a carton at the end of the day is used the following day.

The cost of a carton is 70p.

Charlie and Jasmine buy just enough cartons to last them for 10 days.

How much do they spend in total for these cartons?

Give your answer in £.

Show your working.

£ ..... [6]

12.

21 Write as a single fraction in its simplest form.

$$\frac{x}{x+2} + \frac{x+1}{x-2} - \frac{6x}{x^2-4}$$

..... [6]

OCR GSCE – Thursday 6 June 2019 – Paper 5 (Non-Calculator) Higher Tier

13.

8 Mrs Mills buys 4 packs of treats for her cats, Fluff and Tigger.

She gives Fluff  $\frac{1}{6}$  of a pack each day.

She gives Tigger  $\frac{1}{5}$  of a pack each day.

For how many complete days will the 4 packs of treats last?

..... [5]