

Name: _____

Teacher
Assessment



Section A Fractions, Equivalence and Amounts Grade F

1. Express $\frac{3}{18}$ as a fraction in its simplest form.

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Answer

(Total 1 marks)

2. (a) Write down another fraction which is equivalent to $\frac{2}{3}$

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Answer

(1)

(d) Express $\frac{42}{70}$ as a fraction in its simplest form.

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.....

Answer

(2)(Total 3 marks)

3. Complete the equivalent fractions.

(a) $\frac{3}{5} = \frac{\square}{15}$

(1)

(b) $\frac{2}{\square} = \frac{4}{14}$

(1)

(c) $\frac{6}{11} = \frac{24}{\square}$

(1)(Total 3 marks)

4. (a) Change $2\frac{1}{4}$ into an improper fraction.

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Answer

(1)

(b) Change $\frac{16}{3}$ into a mixed number.

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Answer

(1)
(Total 2 marks)

5. Work out $\frac{7}{8}$ of 32.

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Answer

(Total 2 marks)

6. Work out the following $\frac{2}{5}$ of 45.

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Answer

(Total 2 marks)

7. Work out $\frac{3}{7}$ of 28

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.....

Answer

(Total 2 marks)

Success:

Target:



Section B **+ - × ÷ Fractions** **Grade D → B**

1. Heather is revising fractions for her homework.
This is how she answers one of the questions.

$$\frac{1}{2} + \frac{1}{3} = \frac{2}{5}$$

Heather is wrong.

Show the correct way to work out $\frac{1}{2} + \frac{1}{3}$

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(Total 3 marks)

2. Work out the value of $\frac{2}{5} + \frac{1}{4}$

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Answer

(Total 2 marks)

3. Work out $\frac{2}{5} - \frac{3}{8}$

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Answer.....

(Total 2 marks)

4. Calculate $\frac{3}{7} \times \frac{2}{5}$

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.....

Answer

(Total 1 mark)

5. Work out $\frac{3}{8} \times \frac{2}{9}$

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.....
.....

Answer

(Total 1 mark)

6. (a) Work out $\frac{1}{3} \div \frac{1}{9}$

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.....

Answer

(Total 2 marks)

7. Work out $\frac{3}{8} \div \frac{1}{3}$

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Answer

(Total 2 marks)

8. Work out $2\frac{4}{5} + 3\frac{2}{3}$

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Answer

(Total 3 marks)

9. Work out $4\frac{2}{3} + 1\frac{3}{5}$

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Answer
(Total 3 marks)

10. Find the value of $4\frac{2}{3} - 2\frac{3}{4}$

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Answer
(Total 3 marks)

11. Work out $1\frac{3}{4} \times 1\frac{4}{7}$

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Answer
(Total 3 marks)

12. Work out $4\frac{2}{3} \div 1\frac{3}{4}$

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Answer
(Total 3 marks)

13. Work out

(a) $6 \times 2\frac{2}{5}$

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Answer

(3)

(b) $3 \div 2\frac{1}{4}$

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.....
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Answer

(3) (Total 6 marks)

14. Which of these fractions is closest to $\frac{1}{4}$?

You **must** show your working.

$\frac{2}{5}$ $\frac{3}{10}$ $\frac{7}{20}$ $\frac{13}{40}$

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(Total 3 marks)

15. Which of these fractions is closest to $\frac{1}{3}$?

$$\frac{1}{4}$$

$$\frac{3}{8}$$

$$\frac{4}{9}$$

$$\frac{7}{24}$$

You must show all your working.

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Answer

(Total 3 marks)

16. (a) Work out $\frac{3}{7} \times 28$

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.....

Answer

(2)

(b) Work out 0.3×0.1

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.....

Answer

(1)

(c) Work out $\frac{3}{5} \div 6$

.....
.....

Answer

(2)

(Total 5 marks)

17. (a) Write down the reciprocal of 0.2

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Answer

(2)

(b) Fill in the boxes to make these statements correct.

(i) $\frac{1}{5} \times \square = 1$

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.....

(1)

(ii) $\frac{3}{4} \times \frac{\square}{\square} = 1$

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(1)

(Total 4 marks)

18. (a) Write down the number that does **not** have a reciprocal.

Answer

(1)

(b) Work out $\frac{2\pi}{7} - \frac{\pi}{5}$

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Answer

(2)

(Total 3 marks)

Success:

Target:



Section C **Worded Problems** **Grade D → B**

1. There are 24 passengers on a bus.
 $\frac{1}{4}$ of the passengers are men. $\frac{1}{3}$ of the passengers are women.
The rest of the passengers are children.

How many passengers are children?

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Answer
(Total 3 marks)

2. There are 40 sweets in a bag.
Ben eats $\frac{1}{8}$ of the 40 sweets. Jerry eats $\frac{1}{5}$ of the 40 sweets.

What fraction of the sweets do Ben and Jerry eat altogether?

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Answer.....
(Total 3 marks)

3. A supermarket sells 500 kg of potatoes. $\frac{3}{10}$ of the potatoes are sold in 5 kg bags.
How many 5 kg bags of potatoes does the supermarket sell?

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Answer bags
(Total 4 marks)

4. Lucy makes some curtains for her living room and her bedroom.

In the living room she uses $3\frac{2}{3}$ metres of material.

In the bedroom she uses $2\frac{4}{5}$ metres of material.

How many metres of material does she use altogether?

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Answer m
(Total 3 marks)

5. Shalina has two cats and has asked a neighbour to feed them while she is away on holiday.

Each cat will eat $\frac{3}{4}$ of a tin of food every day. Shalina is going to be away for seven days.

What is the least number of tins of food needed to feed **both** cats?

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.....

Answer
(Total 3 marks)

6. Petra has $6\frac{3}{4}$ metres of ribbon.

She makes 6 blouses and uses $\frac{2}{5}$ of a metre of ribbon on each blouse.

How much ribbon does she have left?

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Answer m
(Total 4 marks)

7. Linda uses $\frac{3}{5}$ of a tin of paint to paint a fence panel.
What is the **least** number of tins she needs to paint 8 fence panels?

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Answer.....

(Total 3 marks)

8. Poppy the dog has two meals a day.
At each meal Poppy eats $\frac{2}{5}$ of a tin of dog food.
On Monday morning there are 5 tins of dog food in the cupboard.
Is this enough dog food to feed Poppy for one week?
You **must** show your working.

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(Total 3 marks)

9. Find the value of $\frac{\frac{1}{4} \times 16}{\frac{1}{27} \times (3)^2}$

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Answer

(Total 3 marks)

10. Kate is baking two loaves of bread.

One loaf needs $1\frac{1}{4}$ cups of milk. Kate only has $1\frac{2}{3}$ cups of milk.

How much more milk does Kate need?
Give your answer as a fraction of a cup.

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Answer

(Total 3 marks)

11. A machine packs grain at a rate of $1\frac{1}{5}$ tonnes of grain per hour.

How long will the machine take to pack 15 tonnes of grain?

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Answer

(Total 3 marks)

Success:

Target:



Section D Recurring Decimals to Fractions Grade A / A*

1. (a) Which of these fractions can be written as recurring decimals?

$$\frac{1}{5} \quad \frac{1}{6} \quad \frac{5}{8} \quad \frac{2}{3}$$

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.....

Answer

(2)

(b) Express $\frac{2}{9}$ as a recurring decimal.

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.....

Answer

(1)

(Total 3 marks)

2. (a) Which one of $\frac{5}{6}$, $\frac{7}{8}$ and $\frac{9}{10}$ is a recurring decimal?
Show clearly how you made your decision.

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Answer

(2)

(b) Change $\frac{3}{11}$ to a recurring decimal.

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Answer

(2)

(Total 4 marks)

3. Express the recurring decimal $0.4272727\ldots$ as a fraction.

Give your answer in its simplest form.

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Answer

(Total 4 marks)

4. Express $0.\dot{3}\dot{6}$ as a fraction in its simplest form.

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Answer

(Total 2 marks)

5. Express $0.\dot{4}\dot{8}$ as a fraction in its simplest form.

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Answer

(Total 2 marks)

6. Prove that $0.4\dot{7} = \frac{43}{90}$

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(Total 3 marks)

7. (a) Prove that $0.5\dot{8} = \frac{58}{99}$

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(2)

(b) Hence, or otherwise, express $0.1\dot{5}\dot{8}$ as a fraction.

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Answer

(2)

(Total 4 marks)

8. (a) Prove that $0.4\dot{6} = \frac{46}{99}$

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(2)

(b) Hence express $0.3\dot{4}\dot{6}$ as a fraction.

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Answer

(2)

(Total 4 marks)

9. (a) Write $0.1\dot{8}$ as a fraction in its simplest form.

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Answer

(2)

(b) Hence or otherwise express $0.5\dot{1}\dot{8}$ as a fraction.

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Answer

(2)

(Total 4 marks)

10. Prove that

$$0.3\dot{4}\dot{2} = \frac{113}{330}$$

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(Total 3 marks)

11. Prove that $0.1\dot{5}\dot{4}$ is equal to $\frac{17}{110}$

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(Total 3 marks)

12. Prove that $0.2\dot{1}\dot{6} = \frac{107}{495}$

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(Total 3 marks)

13. Convert $0.4\dot{7}\dot{1}$ to a fraction.
Give your answer in its simplest form.

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Answer

(Total 3 marks)

14. Write $0.3\dot{1}\dot{5}$ as a fraction in its simplest form.

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Answer

(Total 3 marks)

15. (a) Write $0.\dot{3}\dot{4}$ as a fraction in its simplest form.

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Answer

(2)

(b) Write $0.\dot{6}\dot{3}\dot{4}$ as a fraction in its simplest form.

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Answer

(3)
(Total 5 marks)

16. Prove that the recurring decimal $1.207207207\dots$ is equal to the fraction $1\frac{23}{111}$

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(Total 3 marks)

17. Write $0.4\dot{2}\dot{1}$ as a fraction in its simplest form.

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Answer

(Total 3 marks)

18. (a) Express $0.\dot{4}\dot{2}$ as a fraction in its simplest form.

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Answer

(2)

(b) Hence, or otherwise, express $0.7\dot{4}\dot{2}$ as a fraction.

Write this fraction in its simplest form.

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Answer

(3)

(Total 5 marks)

Success:

Target:
