Topics

Calculating with fractions – Fractions and recurring decimals

Questions

1. Work out, giving your answer as a fraction in its simplest form, using mixed numbers where appropriate

    (a) $\dfrac{3}{4} \times \dfrac{2}{5}$

    ………………………

    (2)

    (b) $\dfrac{3}{8} - \dfrac{5}{24}$

    ………………………

    (2)

    (b) $2\dfrac{2}{3} \div 1\dfrac{5}{9}$

    ………………………

    (3)

    (b) $1\dfrac{3}{8} + 3\dfrac{11}{12}$

    ………………………

    (3)

    (Total 10 marks)

2. Convert the recurring decimal $0.1\dot{8}$ to a fraction in its simplest form.

....

(Total 2 marks)

3. Solve $\dfrac{1}{x} + \dfrac{4}{x-3} = \dfrac{7}{x^2 - 3x}$

$x =$ ....

(Total 4 marks)

4. (a) Change $\dfrac{5}{22}$ to a decimal.

....

(1)

(b) Prove that the recurring decimal $0.\dot{5}\dot{4} = \dfrac{6}{11}$

(3)

(Total 4 marks)

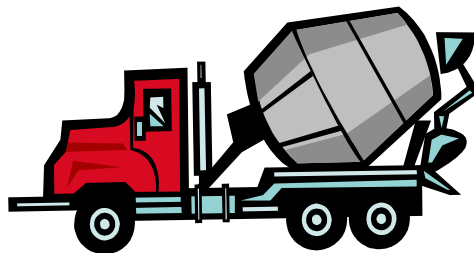**5.** (a) Express $0.00\dot{6}$ as a fraction in its simplest form.

……………………………

(3)

(b) Convert the recurring decimal $3.0\dot{4}\dot{8}$ to a mixed number.
Give your answer in its simplest form.

……………………

(3)

(Total 6 marks)

6. Bob mixes concrete.

He uses cement, sand and gravel in the ratio 1 : 3 : 5
Bob uses 90 kilograms of sand.

Work out the number of kilograms of cement and the number of kilograms of gravel Bob uses.

Cement .... kg

Gravel .... kg

(Total 3 marks)

7. Abi and Bradley were given a total of £51 000
They shared the money in the ratio 6 : 11

Work out how much money Bradley received.

£ ....
(Total 2 marks)

8. Alfie and Bryony shared £600 in the ratio 7 : 5

Alfie gave a **fifth** of his share to Carol.
Bryony gave a **tenth** of her share to Carol.

What fraction of the £600 did Carol receive?

....
(Total 4 marks)