# N46 Converting FDP Calc

# OCR

**2** **(a)** Change $\frac{5}{8}$ to a decimal.

**(a)** ................................................................. **[1]**

**(b)** Change 80% to a fraction in its lowest terms.

**(b)** ................................................................. **[2]**

**(c)** Write these in order, starting with the smallest.

43%          0.4          $\frac{3}{7}$          $\sqrt{0.2}$

**2** **(a)** Change $\dfrac{5}{8}$ to a decimal.

**(a)** ⟶ 0.625 ............ [1]

**(b)** Change 80% to a fraction in its lowest terms.

$\dfrac{4}{5}$

**(b)** ............................................................ [2]

**(c)** Write these in order, starting with the smallest.

43%        0.4        $\dfrac{3}{7}$        $\sqrt{0.2}$

$0.4, \dfrac{3}{7}, 43\%, \sqrt{0.2}$

0.43   0.40   0.428   0.447

2  (a)  Use one of these symbols $<$, $>$ or $=$ to make each statement true.

(i)  17.6 ..................... 17.06  [1]

(ii)  0.9 ..................... $\frac{45}{50}$  [1]

(b)  Round 184 329 to the nearest hundred.

(b)  ................................................................... [1]

(c)  Write $\frac{5}{8}$ as a decimal.

(c)  ................................................................... [1]

2 (a) Use one of these symbols $<$, $>$ or $=$ to make each statement true.

(i) 17.6 ........$>$........ 17.06

17.60
17.06

[1]

(ii) 0.9 ........$=$........ $\frac{45}{50}$

[1]

(b) Round 184 329 to the nearest hundred.

(b) 184300 [1]

(c) Write $\frac{5}{8}$ as a decimal.

(c) 0.625 [1]

1  (a)  Complete this table of fractions, decimals and percentages.

| Fraction | | Decimal | | Percentage |
|---|---|---|---|---|
| $\dfrac{1}{2}$ | = | 0.5 | = | 50% |
| | = | 0.27 | = | |
| $\dfrac{4}{5}$ | = | | = | |
| | = | | = | 3% |

[3]

(b)  Write 45% as a fraction in its simplest form.

(b)  ............................................................. [2]

(c)  Alan and Brian share a sum of money in the ratio 1:4.

What fraction of the money does Alan receive?

(c)  ............................................................. [1]

1  (a)  Complete this table of fractions, decimals and percentages.

| Fraction | | Decimal | | Percentage |
|---|---|---|---|---|
| $\frac{1}{2}$ | = | 0.5 | = | 50% |
| $\frac{27}{100}$ | = | 0.27 | = | 27% |
| $\frac{4}{5} = \frac{8}{10}$ | = | 0.8 | = | 80% |
| $\frac{3}{100}$ | = | 0.03 | = | 3% |

[3]

(b)  Write 45% as a fraction in its simplest form.

$\frac{9}{20}$

(b)  ................................................................ [2]

(c)  Alan and Brian share a sum of money in the ratio 1:4.

What fraction of the money does Alan receive?

$\frac{1}{5}$

(c)  ................................................................ [1]

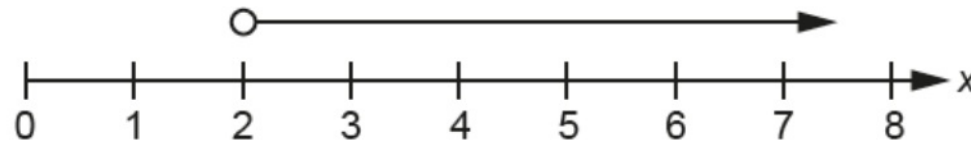4   (a)  Use one of these symbols  <, > or =  to make each statement true.

   (i)  $\frac{1}{4}$ ............ 0.25                                                    [1]

   (ii)  0.66 ............ $\frac{2}{3}$                                                   [1]

   (iii)  6 ............ $2^3$                                                            [1]

(b)  Write down the inequality for $x$ that is shown on this number line.



                                              (b)  ................................................ [1]

**4**  **(a)**  Use one of these symbols  <, > or =  to make each statement true.

(i)  $\frac{1}{4}$ ......=...... 0.25  **[1]**

(ii)  0.66 ......<...... $\frac{2}{3}$  $\frac{2}{3} = 0.6666$ is bigger then $0.66$  **[1]**

(iii)  6 ......<...... $2^3$  **[1]**
        $_{>8}$

**(b)**  Write down the inequality for x that is shown on this number line.
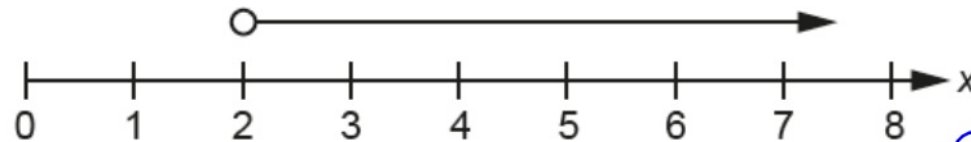


(b)  $x > 2$  **[1]**

**5** Write the following in order of size, smallest first.

$$28\% \qquad \frac{7}{26} \qquad 2.7$$

............... ............... ............... **[2]**

*smallest*

5   Write the following in order of size, smallest first.

$$28\% \qquad \frac{7}{26} \qquad 2.7$$

0·28    0·2692    2·7

$\frac{7}{26}$   28%   2·7   [2]

smallest

**9** **(a)** Elsie changes $\frac{3}{8}$ to a decimal.

This is her working.

$\frac{3}{8}$ is $\frac{1}{8}$ more than $\frac{1}{4}$ ...................................................................................

$\frac{1}{4}$ is the same as 0.14 ...................................................................................

$\frac{1}{8}$ is $\frac{1}{4}$ × 2 = 0.28 ...................................................................................

so $\frac{3}{8}$ = 0.14 + 0.28 = 0.42 ...................................................................................

Where a line of working is wrong, write the correct working beside it. **[3]**

9   (a)   Elsie changes $\frac{3}{8}$ to a decimal.

This is her working.
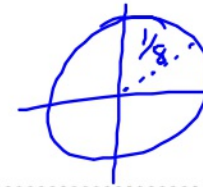
$\frac{3}{8}$ is $\frac{1}{8}$ more than $\frac{1}{4}$    $\frac{2}{8}$       ✓

$\frac{1}{4}$ is the same as 0.14      ✗    $\frac{1}{4} = 0.25$

$\frac{1}{8}$ is $\frac{1}{4}$ × 2 = 0.28      ✗    $\frac{1}{8} = \frac{1}{4} \div 2 = 0.125$

so $\frac{3}{8}$ = 0.14 + 0.28 = 0.42      $\frac{3}{8} = 0.25 + 0.125 = 0.375$

Where a line of working is wrong, write the correct working beside it.      [3]

2  **(a)**  Write these fractions as decimals.

N46 **(i)**  $\dfrac{9}{10}$

**(a)(i)**  ................................................................. **[1]**

**(ii)**  $\dfrac{3}{4}$

**(ii)**  ................................................................. **[1]**

**(b)**  A plank of wood 2.4 m long is cut into 6 pieces of equal length.

N31  How long is each piece?

**(b)**  ................................................. m  **[2]**

2   (a)  Write these fractions as decimals.

N43 (i)  $\frac{9}{10}$

(a)(i)   $0.9$   ......................................................... [1]

(ii)  $\frac{3}{4}$

N45

$$\begin{array}{r} 0.75 \\ 4\overline{)3.^3 0^2 0} \end{array}$$

(ii)   $0.75$   ......................................................... [1]

(b)  A plank of wood 2.4 m long is cut into 6 pieces of equal length.

N31 How long is each piece?

$$\begin{array}{r} 0.4 \\ 6\overline{)2.^2 4} \end{array}$$

40 cm ✓

(b)   $0.4$   ......................................................... m  [2]

2   (a)  Write down.

   (i)   3091 rounded to the nearest hundred

   *N25*

                                                    (a)(i) ................................................................ [1]

   (ii)  3% as a decimal

   *N46*

                                                    (ii) ................................................................ [1]

   (iii)  the cube root of 27

   *N19*

                                                    (iii) ................................................................ [1]

2   (a)   Write down.

(i)   3091 rounded to the nearest hundred

N25

$3\overset{\downarrow}{0}9\underset{\uparrow}{1}$

(a)(i) ........... 3100 ........... [1]

(ii)   3% as a decimal

N46

(ii) ........... 0.03 ........... [1]

(iii)   the cube root of 27

N19

$\sqrt[3]{27}$

$\underline{3} \times \underline{3} \times \underline{3} = 27$

(iii) ........... 3 ........... [1]

3    (a)  Write $\frac{3}{8}$ as a decimal.

N46

(a)  ................................................................. [1]

(b)  Write 42% as a fraction.
     Give your answer in its simplest form.

N46

(b)  ................................................................. [2]

3    (a)  Write $\dfrac{3}{8}$ as a decimal.

N46

(a)  ................ 0·375 ................ [1]

(b)  Write 42% as a fraction.
     Give your answer in its simplest form.

N46

$$\dfrac{42}{100} = \dfrac{21}{50}$$

(b)  ................ $\dfrac{21}{50}$ ................ [2]

# Edexcel

**4**   Write $\dfrac{1}{5}$ as a decimal.

.........................................

**(Total for Question 4 is 1 mark)**

**4** Write $\dfrac{1}{5}$ as a decimal.

0.2

**(Total for Question 4 is 1 mark)**

2   Write 8% as a decimal.

N46

.........................................

**(Total for Question 2 is 1 mark)**

**2**   Write 8% as a decimal.

N46

0.08

**(Total for Question 2 is 1 mark)**

**6** Here are four fractions.

$$\frac{3}{4} \qquad \frac{5}{7} \qquad \frac{19}{25} \qquad \frac{11}{15}$$

Write the fractions in order of size.
Start with the smallest fraction.

**(Total for Question 6 is 2 marks)**

**6** Here are four fractions.

$0.75$      $0.7\dot{1}4$      $0.7\dot{6}$      $0.7\dot{3}$

N34

N46

$$\frac{3}{4} \qquad \frac{5}{7}\checkmark \qquad \frac{19}{25} \qquad \frac{11}{15}\checkmark$$

Decimals

Write the fractions in order of size.
Start with the smallest fraction.

$$\frac{5}{7}, \frac{11}{15}, \frac{3}{4}, \frac{19}{25} \checkmark$$

**(Total for Question 6 is 2 marks)**

AQA

**17**    Circle the fraction equal to  0.1%

N46

**[1 mark]**

$$\frac{1}{10} \qquad \frac{1}{100} \qquad \frac{1}{1000} \qquad \frac{1}{10\,000}$$

**17**     Circle the fraction equal to  0.1%

N46                                                            **[1 mark]**

$$\frac{1}{10} \qquad \frac{1}{100} \qquad \left(\frac{1}{1000}\right) \qquad \frac{1}{10\,000}$$

$$1\% = \frac{1}{100}$$

$$0.1\% = \frac{1}{1000}$$

**12** Put these probabilities in order, starting with the least likely.

N46

N3

44%         $\dfrac{1}{4}$         0.404         $\dfrac{4}{10}$

**[2 marks]**

_____

_____

Answer _____ , _____ , _____ , _____

**12** Put these probabilities in order, starting with the least likely.

Smallest

N4b

N3

| 44% | $\frac{1}{4}$ | 0.404 | $\frac{4}{10}$ |

[2 marks]

0.44     0.25     0.404     0.4

Answer  ¼ , ⁴⁄₁₀ , 0.404 , 44%.

3    Circle the decimal that is greater than $\frac{1}{5}$ and less than $\frac{1}{4}$

N46                                                                              [1 mark]

0.152                0.200                0.215                0.251

**3**  Circle the decimal that is greater than $\dfrac{1}{5}$ and less than $\dfrac{1}{4}$

N46

0.2        0.25        **[1 mark]**

0.152        0.200        0.215        0.251

**2**   Circle the decimal that is greater than $\dfrac{3}{10}$ and less than $\dfrac{2}{5}$

[1 mark]

N46

0.32                0.035                0.4                0.24

**2**     Circle the decimal that is greater than $\dfrac{3}{10}$ and less than $\dfrac{2}{5}$

N46

[1 mark]

0.30     0.40

0.32        0.035        0.4        0.24

**12** A takeaway sells 10-inch pizzas and 12-inch pizzas.

Here is some information about the numbers sold in two weeks.
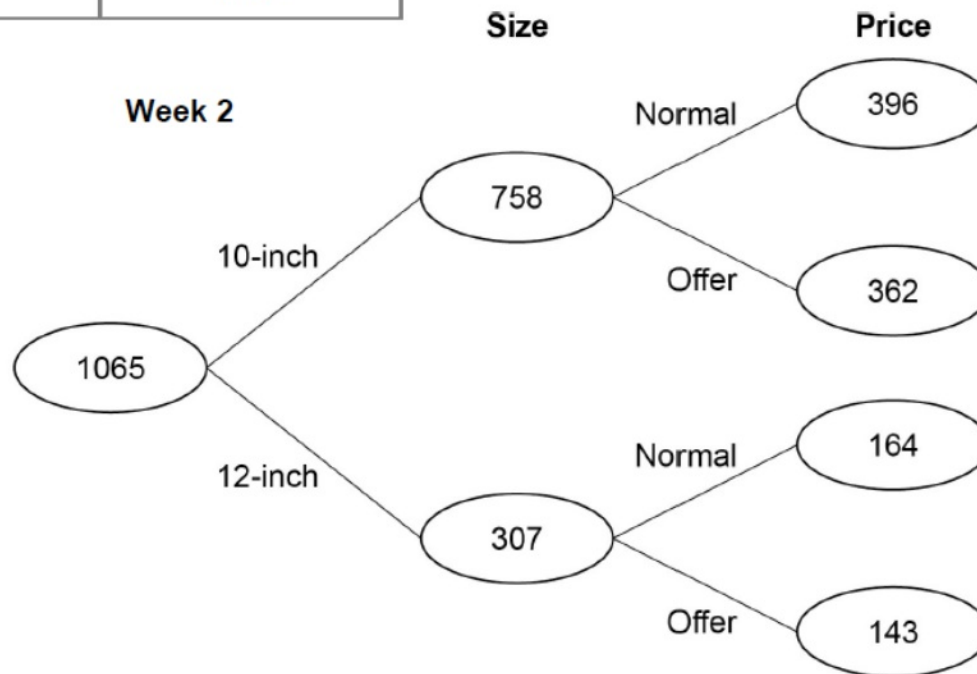
**Week 1**

| | |
|---|---|
| 10-inch | 512 |
| 12-inch | 231 |
| Total | 743 |

**12 (a)** In each week a proportion of the pizzas sold were 10-inch.

N46

In which week was this proportion greater?

Show working to support your answer.        **[2 marks]**

**Week 2**

Size                          Price

**12** A takeaway sells 10-inch pizzas and 12-inch pizzas.

Here is some information about the numbers sold in two weeks.

**Week 1**

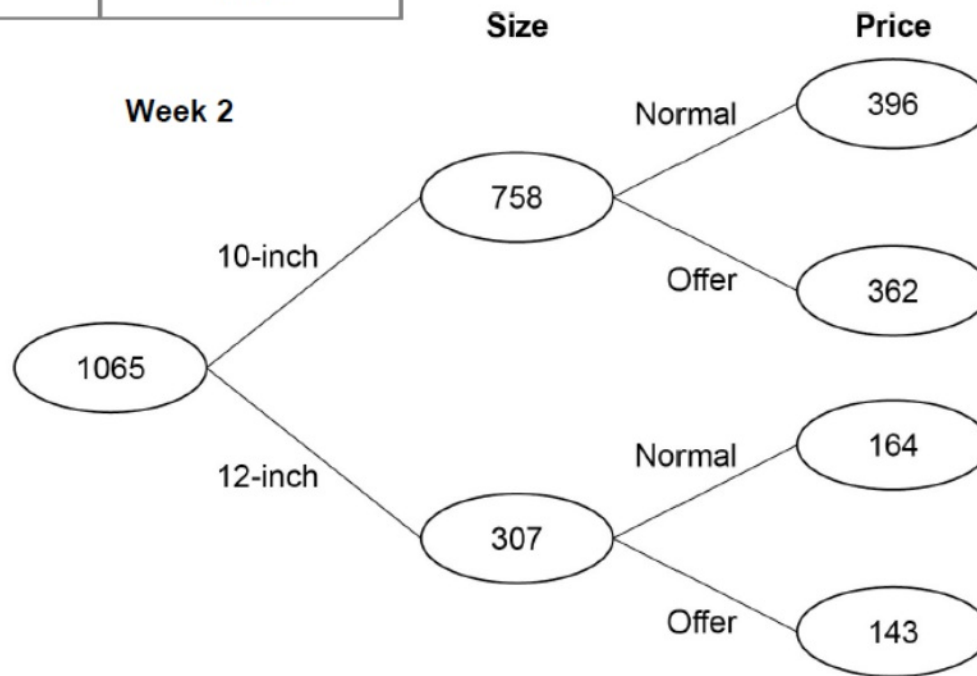| 10-inch | 512 |
|---------|-----|
| 12-inch | 231 |
| Total | 743 |

**12 (a)** In each week a proportion of the pizzas sold were 10-inch.

N46

In which week was this proportion greater?

Show working to support your answer.     **[2 marks]**

**Week 2**

| Size | | Price |
|------|---|-------|
| | Normal | 396 |
| 758 | | |
| | Offer | 362 |
| 10-inch | | |
| 1065 | | |
| 12-inch | | |
| | Normal | 164 |
| 307 | | |
| | Offer | 143 |

Week 1

$$\frac{512}{743} = 0.689$$

Week 2

$$\frac{758}{1065} = 0.711$$

week 2 is higher proportion

**4**     Circle the fraction equal to 0.12

**[1 mark]**

N46

$$\frac{1}{12} \qquad\qquad \frac{3}{25} \qquad\qquad \frac{1}{8} \qquad\qquad \frac{6}{5}$$

**4**     Circle the fraction equal to 0.12

**[1 mark]**

N46

$$\frac{1}{12} \qquad \frac{3}{25} \qquad \frac{1}{8} \qquad \frac{6}{5}$$

$$\frac{12}{100} = \frac{6}{50} = \frac{3}{25} \checkmark$$

**12** How many minutes is 225 seconds?

Circle your answer.

R4a

N46

**[1 mark]**

$2\dfrac{5}{12}$ $\qquad\qquad$ $2\dfrac{1}{4}$ $\qquad\qquad$ $3\dfrac{1}{4}$ $\qquad\qquad$ $3\dfrac{3}{4}$

**12**    How many minutes is 225 seconds?

Circle your answer.

R4a

N46                                                                    **[1 mark]**

$$2\frac{5}{12} \qquad 2\frac{1}{4} \qquad 3\frac{1}{4} \qquad \boxed{3\frac{3}{4}}$$

$$\frac{225}{60} = 3\frac{45}{60}$$

180

**1**    Circle the decimal that is closest in value to $\dfrac{39}{800}$

N3

N46

[1 mark]

0.04          0.048          0.049          0.05

**1**

**N3**

**N46**

Circle the decimal that is closest in value to $\dfrac{39}{800}$
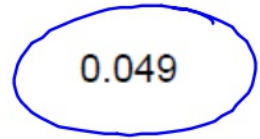
a

0.04875

[1 mark]

0.04          0.048          (0.049)          0.05

**1**    Circle the fraction that is equivalent to 3.875

**[1 mark]**

N46

$$\frac{15}{4} \qquad \frac{29}{8} \qquad \frac{31}{8} \qquad \frac{15}{8}$$

**1**   Circle the fraction that is equivalent to 3.875

**[1 mark]**

N46

$$\frac{15}{4} \qquad \frac{29}{8} \qquad \frac{31}{8} \qquad \frac{15}{8}$$

**1** Circle the decimal that is closest in value to $\dfrac{11}{20}$

N3

N46

[1 mark]

0.56          0.6          0.525          0.5

1    Circle the decimal that is closest in value to $\dfrac{11}{20}$   0·55

[1 mark]

N3

N46

0.56          0.60          0.525          0.50