**1)**

**a) 50, 0.5**

**b) 25, 0.25**

**c) 10, 0.1**

**d) 20, 0.2**

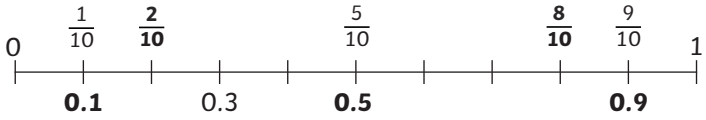
**3)**

**a)** $1\frac{1}{5}$

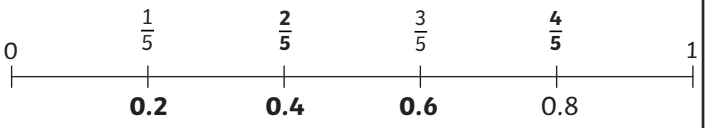
**b)** $2\frac{1}{2}$

**c) 0.7**

**2) a)**



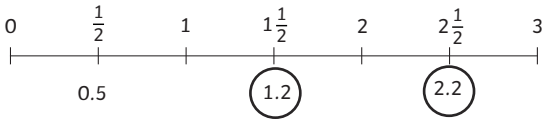

**b)**




**1)**

| | ✓ or x | corrections |
|---|---|---|
| $\frac{1}{2}$ = 0.1 | **x** | **= 0.5** |
| $\frac{3}{5}$ = 0.6 | ✓ | |
| $\frac{2}{10}$ = 0.2 | ✓ | |
| $\frac{1}{4}$ = 0.4 | **x** | **= 0.25** |

**2)** $1\frac{1}{2}$ **= 1.5,** $2\frac{1}{2}$ **= 2.5**




**3) Children should disagree with both Hari and Amrit.** $\frac{12}{5}$ **is equivalent to 2.4,** $\frac{15}{4}$ **= 3.75**

**1) Various answers are possible.**

**Section A – numbers greater than 0 and less than 0.25, e.g.** $\frac{1}{10}$**, 0.2**

**Section B – numbers greater than 0.25 and less than 0.5, e.g.** $\frac{2}{5}$**, 0.3**

**Section C – numbers greater than 0.5 and less than 0.75, e.g.** $\frac{6}{10}$**, 0.7**

**Section D – numbers greater than 0.75 and less than 1, e.g.** $\frac{4}{5}$**, 0.9**

**2) Many answers are possible. For example:**

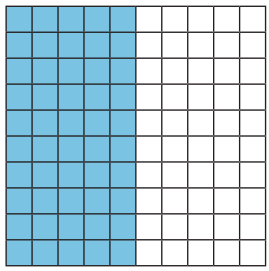
$\frac{14}{10}$ **=** $1\frac{2}{5}$ **= 1.4**

**3) Various answers are possible. Accept answers with two decimal places which are greater than 1.2 and less than 2.8, for example: 1.25, 1.75, 2.25, 2.75**

**Equivalent Fractions and Decimals**

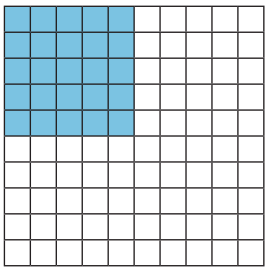
**1)** Write the equivalent fractions and decimals that have been shaded in each hundred square.

**a)**



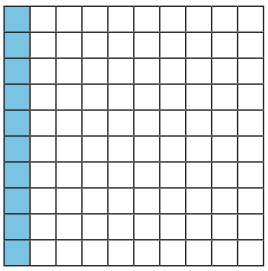
$\frac{1}{2} = \frac{\square}{100} = \square$

**b)**



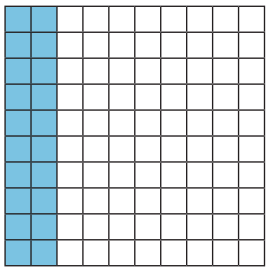
$\frac{1}{4} = \frac{\square}{100} = \square$

**c)**



$\frac{1}{10} = \frac{\square}{100} = \square$

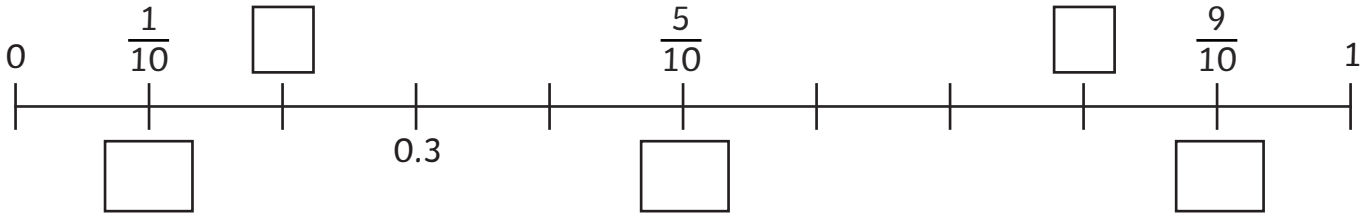
**d)**



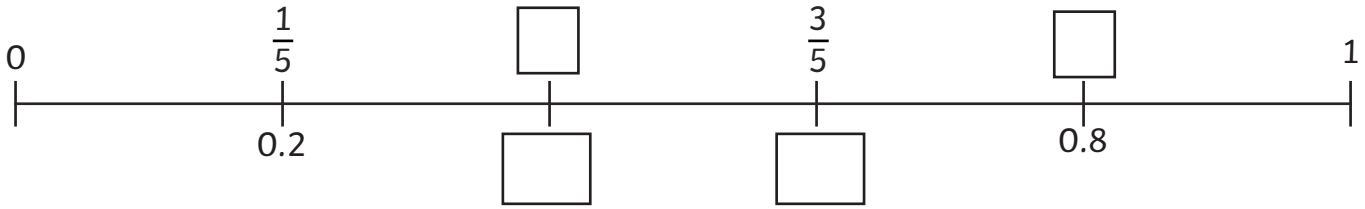
$\frac{1}{5} = \frac{\square}{100} = \square$

**2)** Complete the number lines.

**a)**




**b)**




**3)** Write the equivalent fraction or decimal.

**a)** $1.2 = \square\frac{\square}{5}$

**b)** $2.5 = \square\frac{\square}{2}$

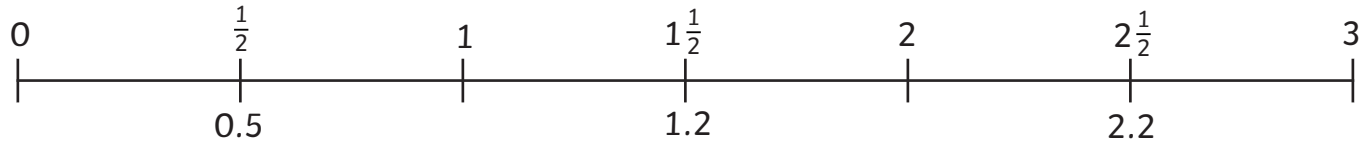
**c)** $\frac{7}{10} = \square$

**Equivalent Fractions and Decimals**

**1)** Abi has been converting fractions to decimals. Tick the conversions which are correct and explain any mistakes she has made.

| | | ✓ or x | Corrections |
|---|---|---|---|
| **a)** | $\frac{1}{2} = 0.1$ | | |
| **b)** | $\frac{3}{5} = 0.6$ | | |
| **c)** | $\frac{2}{10} = 0.2$ | | |
| **d)** | $\frac{1}{4} = 0.4$ | | |

**2)** Zeke has written equivalent fractions and decimals on a number line. Identify and correct any mistakes he has made.




**3)** Hari and Amrit have been converting improper fractions to decimals.

Do you agree with their statements? Prove it!

Hari

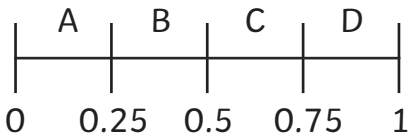
$\frac{12}{5} = 1.25$

$\frac{15}{4} = 1.4$

Amrit

**Equivalent Fractions and Decimals**

**1)** Write a fraction and a decimal which would fit into each of the sections of this number line.




A = ☐/☐ or ☐ B = ☐/☐ or ☐

C = ☐/☐ or ☐ D = ☐/☐ or ☐

**2)** Use the digits 0, 1, 2, 4 and 5 to solve the fraction problem. You may use each digit more than once.

$$\frac{\square\square}{\square\square} = \square\frac{\square}{\square} = \square.\square$$

**3)** Bartek has used the number cards to make a decimal. What number could he have made? Find four possibilities. You can use each card more than once.

Bartek

My number has 2 decimal places.
It is greater than $1\frac{1}{5}$.
It is less than $2\frac{8}{10}$.

| | |
|---|---|
| 7 | 5 |
| 1 | 2 |

Diving into Mastery

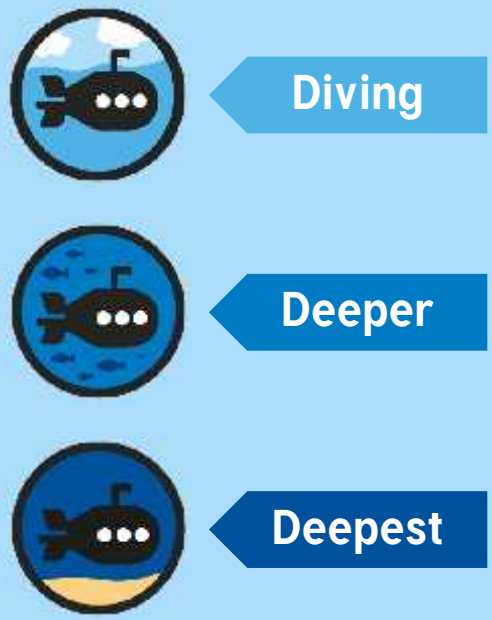
$\frac{3}{6}$ $\frac{1}{2}$

$\frac{1}{2}$ $\frac{3}{10}$ $\frac{5}{10}$ $\frac{3}{6}$ $\frac{3}{10}$ $\frac{4}{6}$

# Equivalent Fractions and Decimals

# Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:




These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

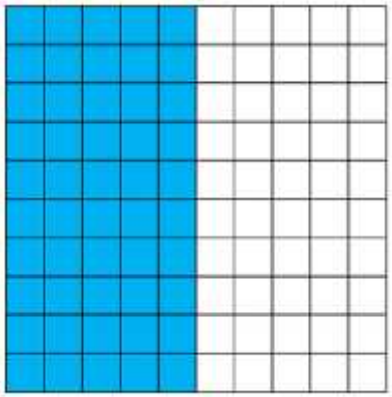
# National Curriculum Aim

- Read and write decimal numbers as fractions

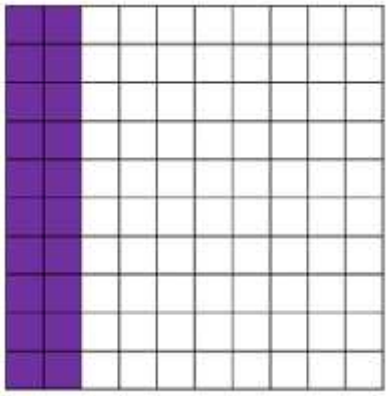
## Equivalent Fractions and Decimals

**Diving**

Write the equivalent fractions and decimals that have been shaded in each hundred square.



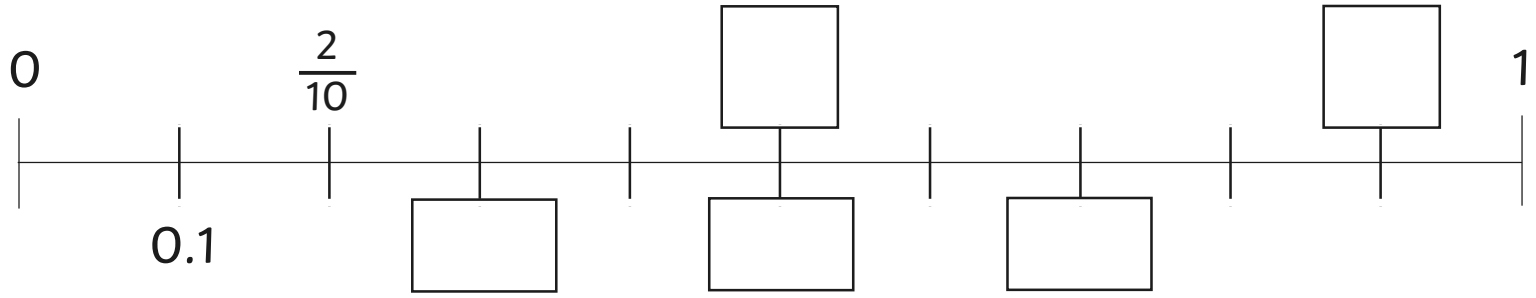
$$\frac{1}{2} = \frac{\square}{10} = \frac{\square}{100} = \square$$

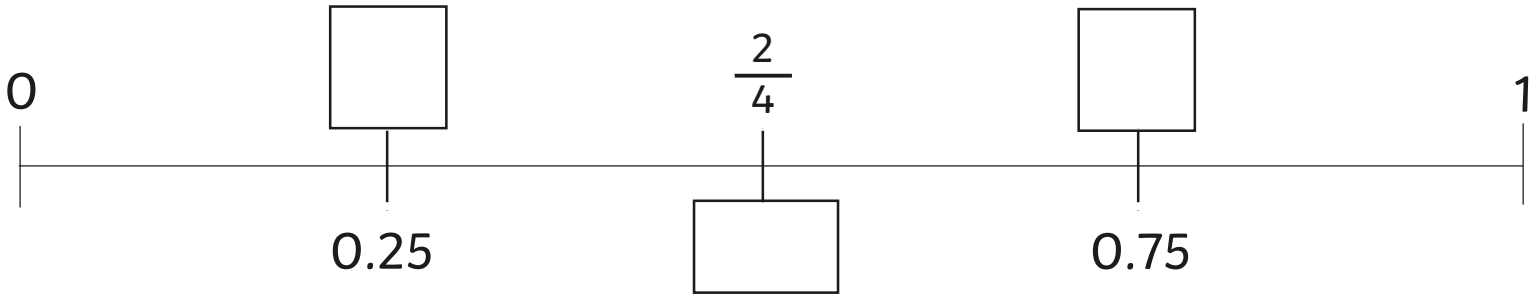


$$\frac{1}{5} = \frac{\square}{10} = \frac{\square}{100} = \square$$

## Equivalent Fractions and Decimals | Diving

Complete the missing fractions and decimals on the number line.



**Equivalent Fractions and Decimals** | **Deeper**

Abi has been converting fractions to decimals. Tick the conversions which are correct and explain any mistakes she has made.

| | ✓ or x | Corrections |
|---|---|---|
| $\frac{4}{5} = 0.45$ | | |
| $\frac{7}{10} = 0.7$ | | |
| $\frac{1}{2} = 0.5$ | | |
| $\frac{3}{4} = 0.34$ | | |

**Equivalent Fractions and Decimals** | **Deeper**

Hari and Amrit are converting improper fractions to decimals. Do you agree with their statements? Prove it!

Hari

$\frac{14}{5} = 1.45$

Amrit

$\frac{12}{4} = 1.2$

**Equivalent Fractions and Decimals** | **Deepest**

Bartek has used the number cards to make a decimal. What number could he have made? Find four possibilities. You can use each card more than once.

My number has 2 decimal places.

It is greater than $2\frac{1}{10}$.

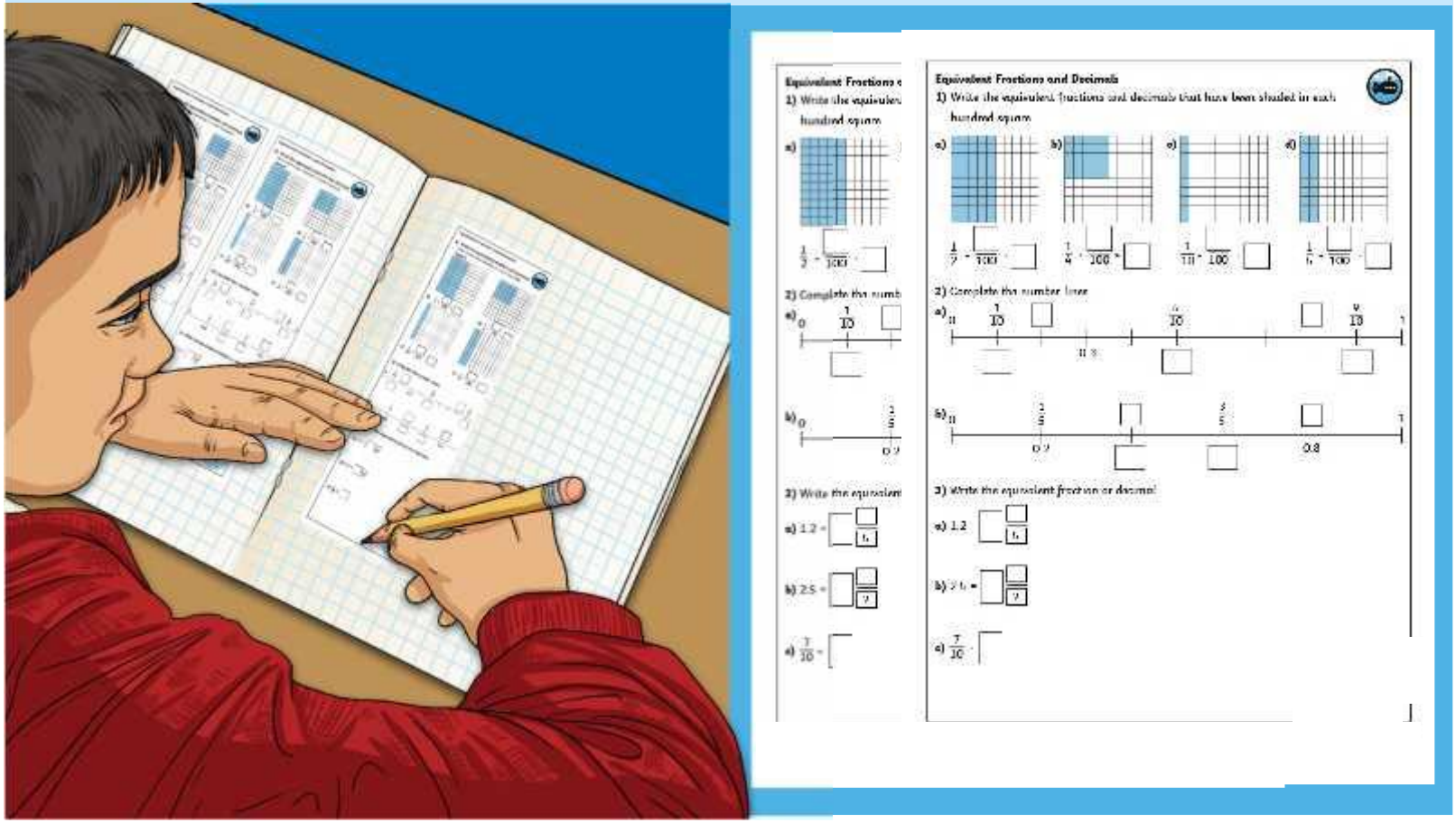
It is less than $3\frac{4}{5}$.

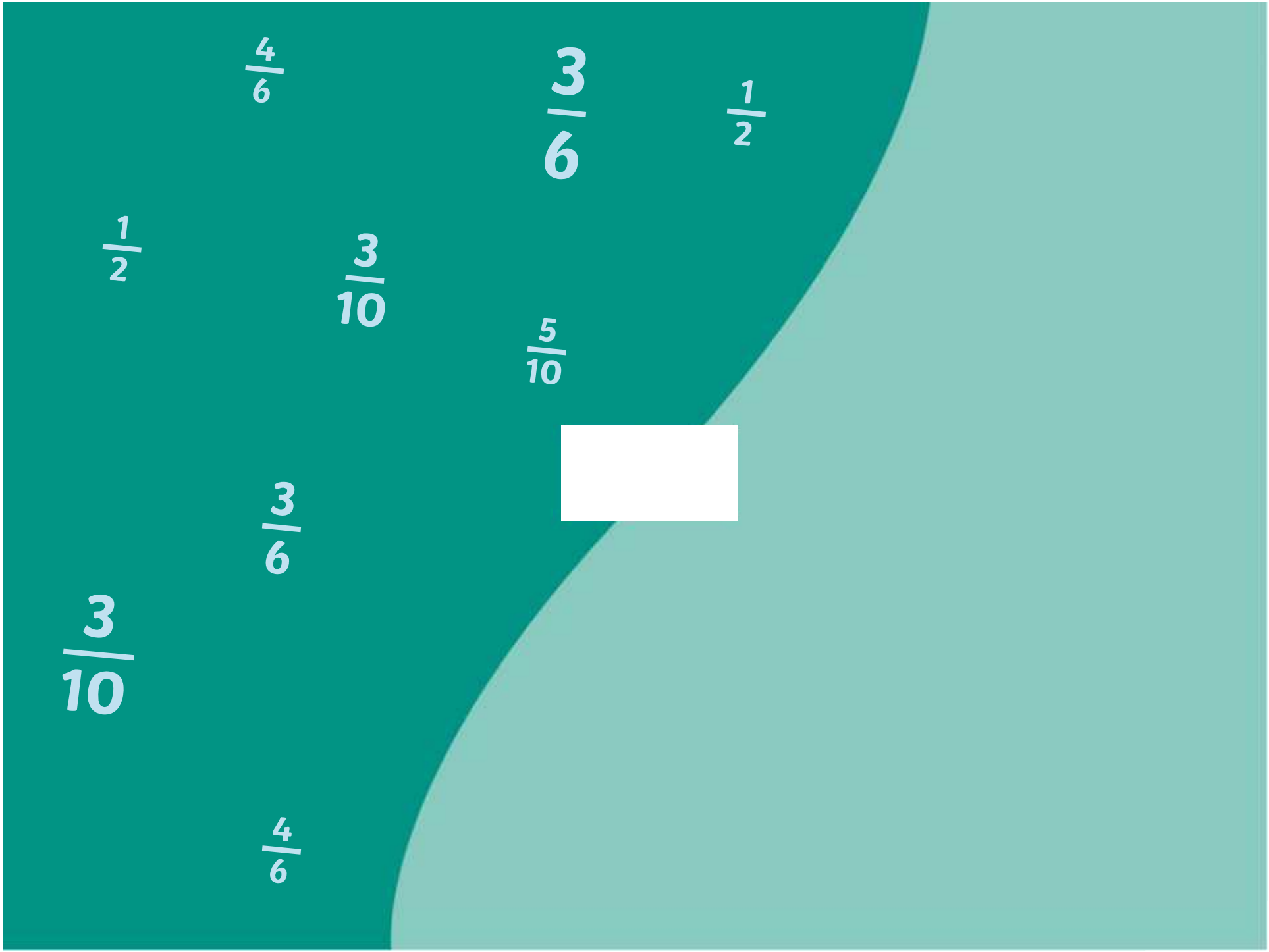
Bartek

| | |
|---|---|
| 3 | 5 |
| 2 | 7 |

# Equivalent Fractions and Decimals

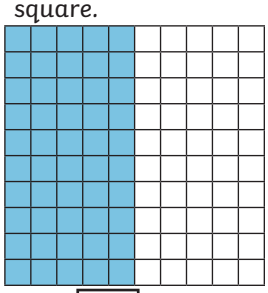
Dive in by completing your own activity!



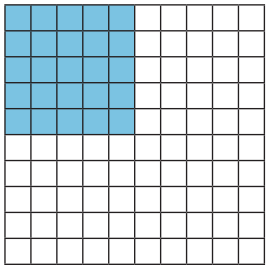

4/6
3/6
1/2
1/2
3/10
5/10
3/6
3/10
4/6

## Equivalent Fractions and Decimals

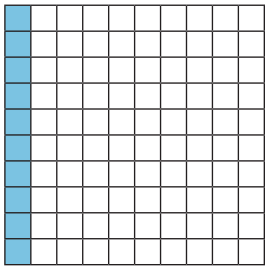
**1)** Write the equivalent fractions and decimals that have been shaded in each hundred square.



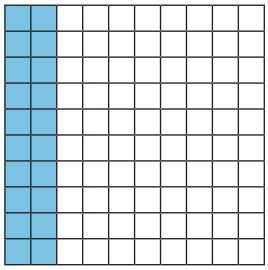
**a)** $\frac{1}{2} = \frac{\square}{100} = \square$



**b)** $\frac{1}{4} = \frac{\square}{100} = \square$

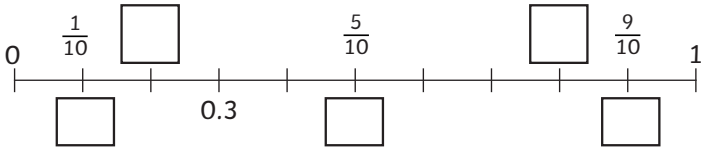


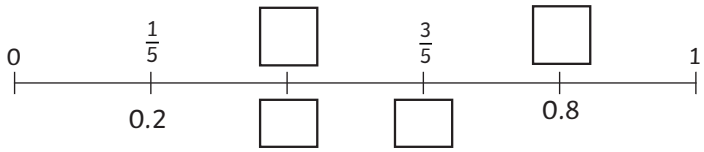
**c)** $\frac{1}{10} = \frac{\square}{100} = \square$



**d)** $\frac{1}{5} = \frac{\square}{100} = \square$

**2)** Complete the number lines.




**3)** Write the equivalent fraction or decimal.

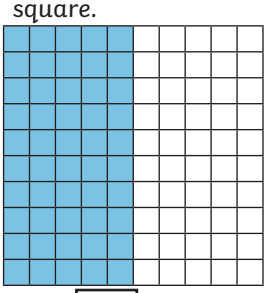
**a)** 1.2 = $\frac{\square}{5}$

**b)** 2.5 = $\frac{\square}{2}$

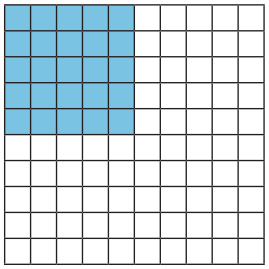
**c)** $\frac{7}{10} = \square$


## Equivalent Fractions and Decimals

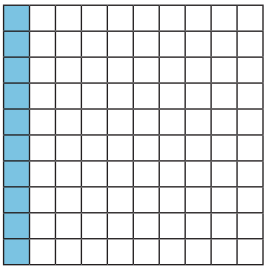
**1)** Write the equivalent fractions and decimals that have been shaded in each hundred square.

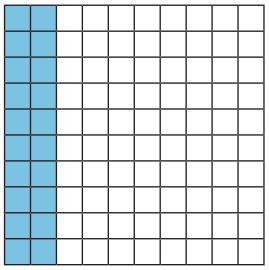
**a)** $\frac{1}{2} = \frac{\square}{100} = \square$



**b)** $\frac{1}{4} = \frac{\square}{100} = \square$

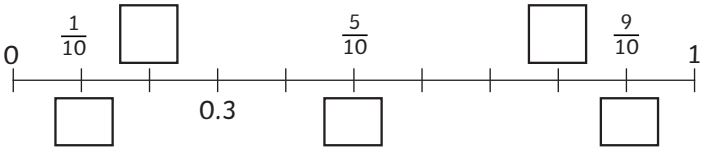


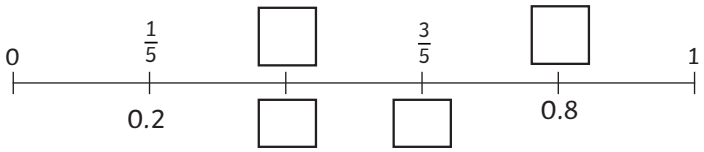
**c)** $\frac{1}{10} = \frac{\square}{100} = \square$



**d)** $\frac{1}{5} = \frac{\square}{100} = \square$


**2)** Complete the number lines.



**3)** Write the equivalent fraction or decimal.

**a)** 1.2 = $\frac{\square}{5}$

**b)** 2.5 = $\frac{\square}{2}$

**c)** $\frac{7}{10} = \square$

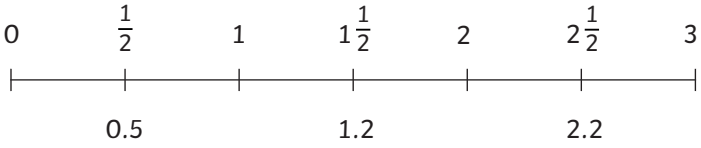
## Equivalent Fractions and Decimals

**1)** Abi has been converting fractions to decimals. Tick the conversions which are correct and explain any mistakes she has made.

| | | ✓ or x | Corrections |
|---|---|---|---|
| **a)** | $\frac{1}{2} = 0.1$ | | |
| **b)** | $\frac{3}{5} = 0.6$ | | |
| **c)** | $\frac{2}{10} = 0.2$ | | |
| **d)** | $\frac{1}{4} = 0.4$ | | |

**2)** Zeke has written equivalent fractions and decimals on a number line. Identify and correct any mistakes he has made.

Zeke




**3)** Hari and Amrit are converting improper fractions to decimals. Do you agree with their statements? Prove it!

Hari

$\frac{12}{5} = 1.25$

$\frac{15}{4} = 1.4$

Amrit

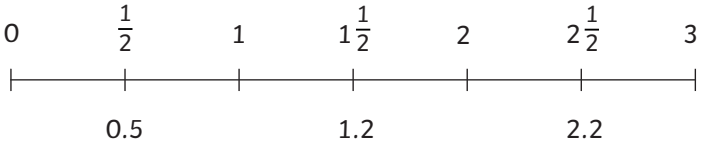

## Equivalent Fractions and Decimals

**1)** Abi has been converting fractions to decimals. Tick the conversions which are correct and explain any mistakes she has made.

| | | ✓ or x | Corrections |
|---|---|---|---|
| **a)** | $\frac{1}{2} = 0.1$ | | |
| **b)** | $\frac{3}{5} = 0.6$ | | |
| **c)** | $\frac{2}{10} = 0.2$ | | |
| **d)** | $\frac{1}{4} = 0.4$ | | |

**2)** Zeke has written equivalent fractions and decimals on a number line. Identify and correct any mistakes he has made.


Zeke





**3)** Hari and Amrit are converting improper fractions to decimals. Do you agree with their statements? Prove it!


Hari

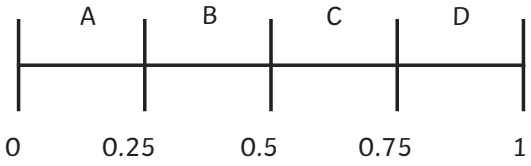
$\frac{12}{5} = 1.25$

$\frac{15}{4} = 1.4$

Amrit

## Equivalent Fractions and Decimals

**1)** Write a fraction and a decimal which would fit into each of the sections of this number line.




**2)** Use the digits 0, 1, 2, 4 and 5 to solve the fraction problem. You may use each digit more than once.

$$\frac{\square\square}{\square\square} = \square\frac{\square}{\square} = \square.\square$$

**3)** Bartek has used the number cards to make a decimal. What number could he have made? Find four possibilities. You can use each card more than once.

| 7 | 5 | 1 | 2 |
|---|---|---|---|

Bartek

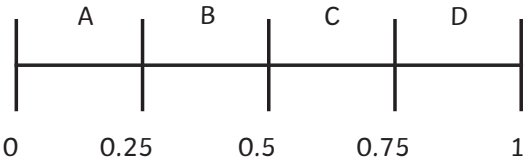
My number has 2 decimal places.

It is greater than $1\frac{1}{5}$.

It is less than $2\frac{8}{10}$.


## Equivalent Fractions and Decimals

**1)** Write a fraction and a decimal which would fit into each of the sections of this number line.




**2)** Use the digits 0, 1, 2, 4 and 5 to solve the fraction problem. You may use each digit more than once.

$$\frac{\square\square}{\square\square} = \square\frac{\square}{\square} = \square.\square$$

**3)** Bartek has used the number cards to make a decimal. What number could he have made? Find four possibilities. You can use each card more than once.

| 7 | 5 | 1 | 2 |
|---|---|---|---|

Bartek

My number has 2 decimal places.

It is greater than $1\frac{1}{5}$.

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