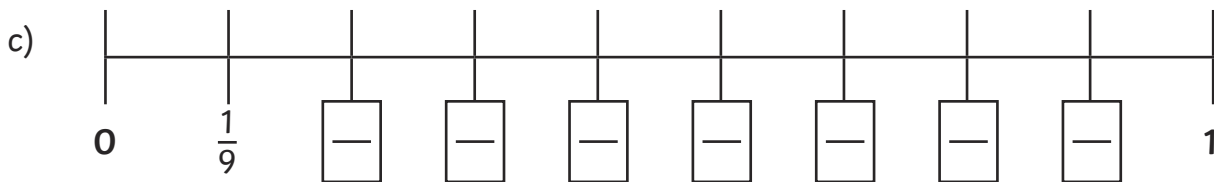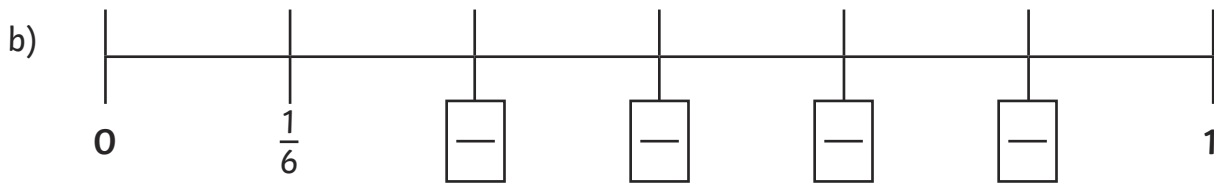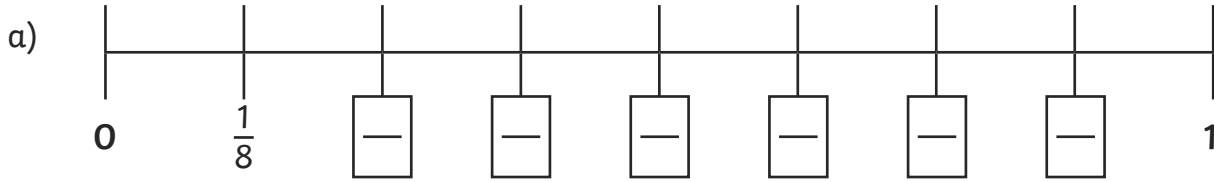# Fractions on Number Lines
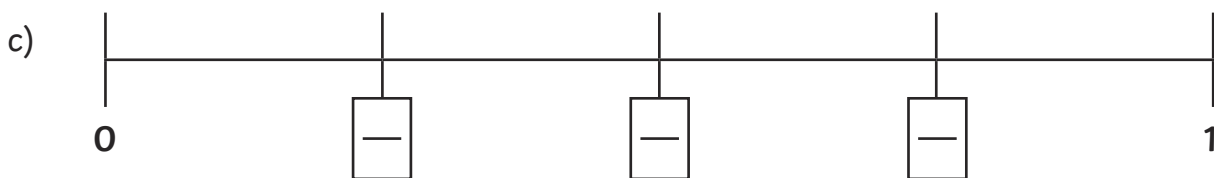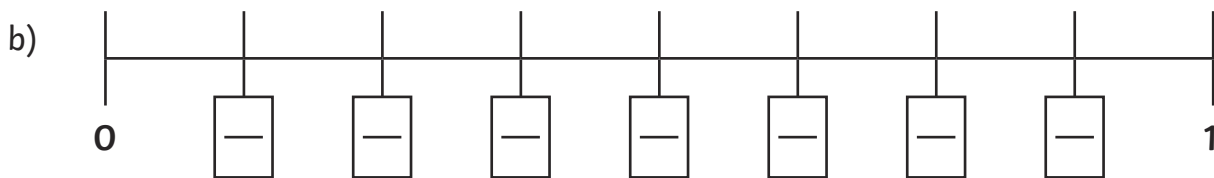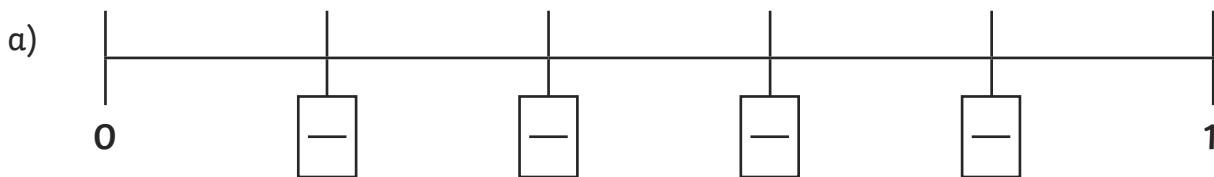
To reason about the position of fractions on number lines up to one whole.

1. Label the number lines. The first fraction has been given.

a)

0    $\frac{1}{8}$ □   □   □   □   □   □   1

b)

0    $\frac{1}{6}$ □   □   □   □   1

c)

0    $\frac{1}{9}$ □   □   □   □   □   □   □   1

2. Label the number lines. Count how many equal parts the whole has been divided into.

a)

0   □   □   □   □   1

b)

0   □   □   □   □   □   □   □   1

c)

0   □   □   □   1

3. What fraction are the arrows pointing at? The first fraction has been given.

a)

0    $\frac{1}{6}$ □   1

b)
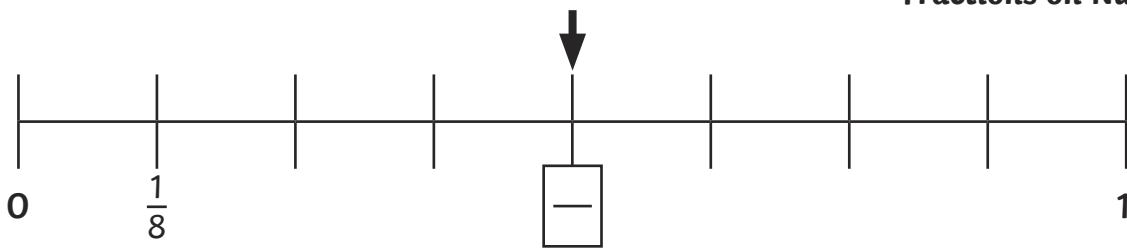
4. What fraction are the arrows pointing at? Count how many equal parts the whole has been divided into.

a)

b)

5. Draw an arrow to show approximately where $\frac{2}{3}$ is on the number line. Divide the whole into 3 equal parts.

Fractions on Number Lines

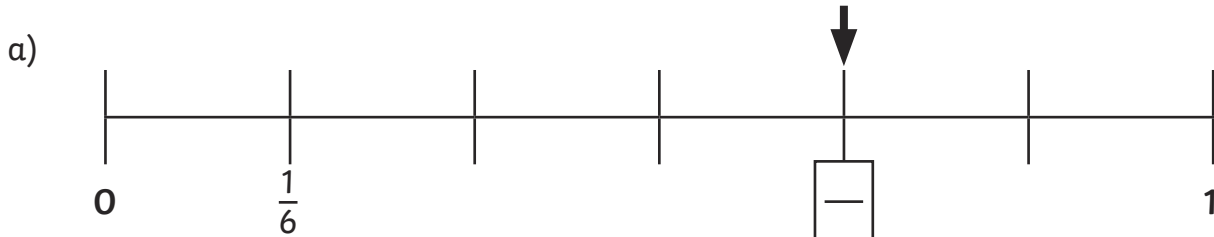To reason about the position of fractions on number lines up to one whole.
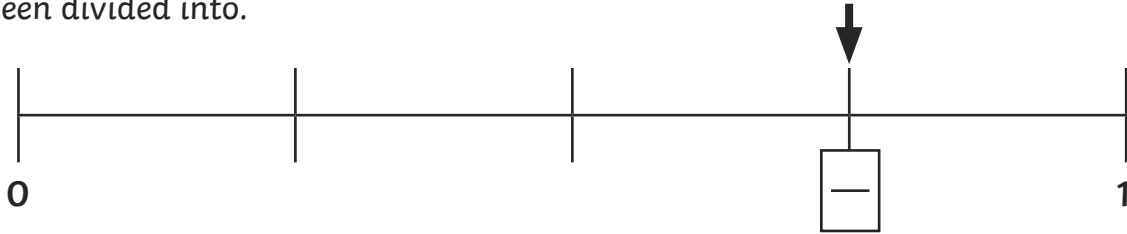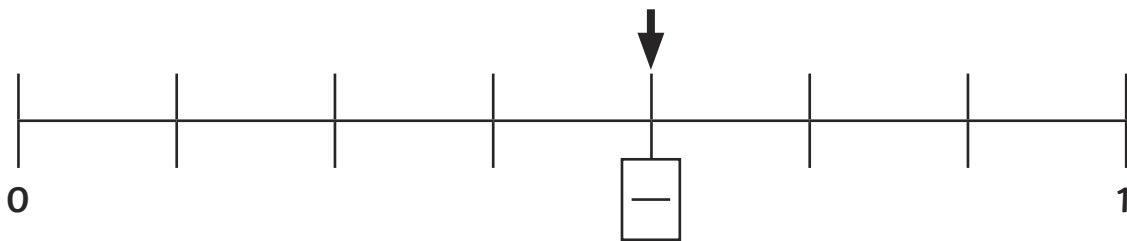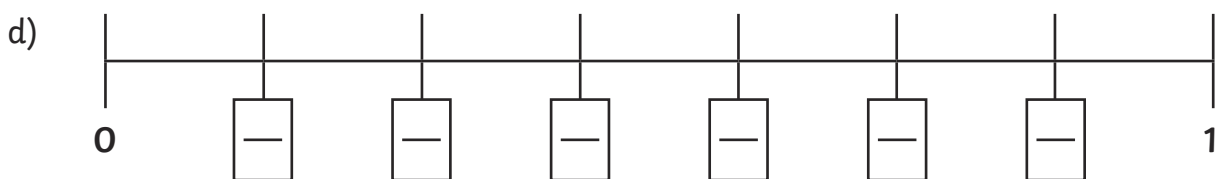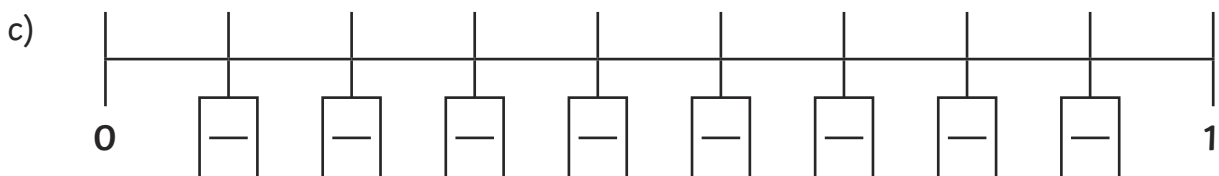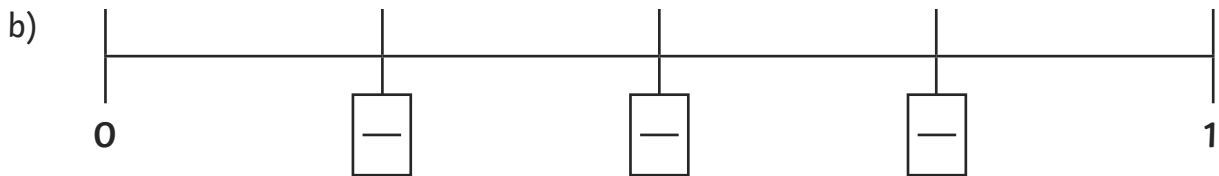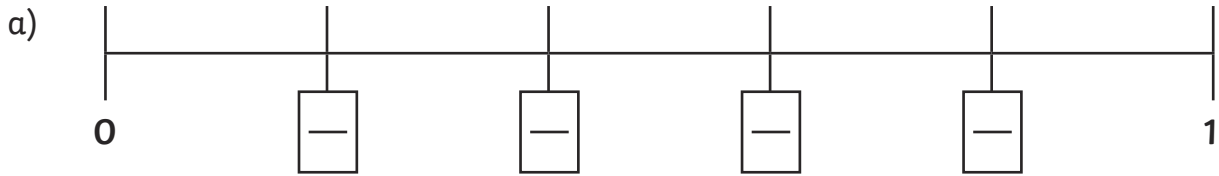
1. Label the number lines. Count how many equal parts the whole has been divided into.

a)

0   ⬚   ⬚   ⬚   ⬚   1

b)

0   ⬚   ⬚   ⬚   1

c)

0   ⬚ ⬚ ⬚ ⬚ ⬚ ⬚ ⬚ ⬚   1

d)

0   ⬚   ⬚   ⬚   ⬚   ⬚   ⬚   1

2. What fraction are the arrows pointing at? Count how many equal parts the whole has been divided into.

a)

0   ⬚   1

b)

0   ⬚   ⬚   1
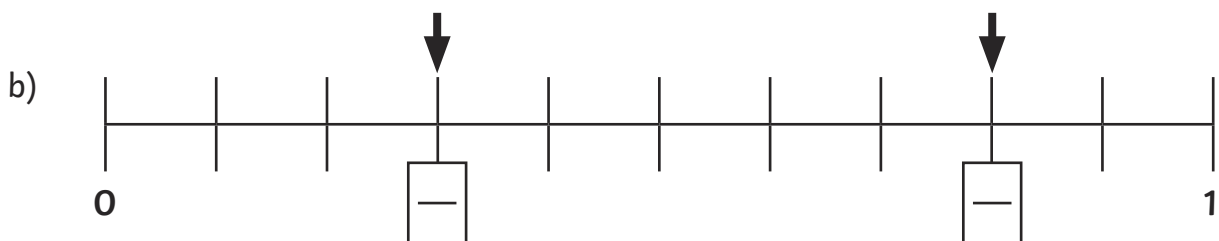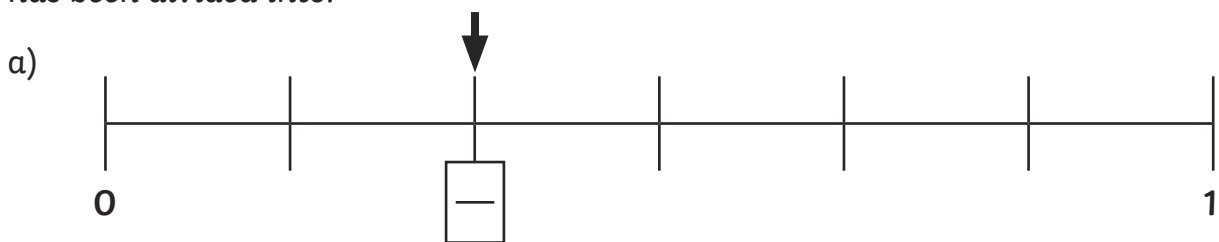
3. Add the missing labels.

a)

1 litre

☐ litre

☐ litre

$\frac{1}{4}$ litre

b)

1 litre

☐ litre

☐ litre

☐ litre

☐ litre

4. Draw an arrow to show approximately where $\frac{7}{8}$ is on the number line. Divide the whole into 8 equal parts.

0   1

5.

a) Draw arrows to show approximately where $\frac{1}{3}$ and $\frac{1}{5}$ are on the number line.

0   1
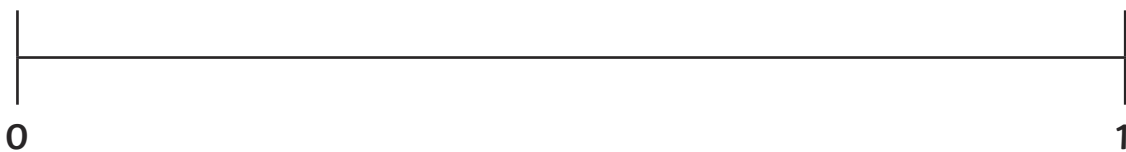
b) Which fraction is greater, $\frac{1}{3}$ or $\frac{1}{5}$? Explain how you know.

_____

_____

_____

_____

Fractions on Number Lines
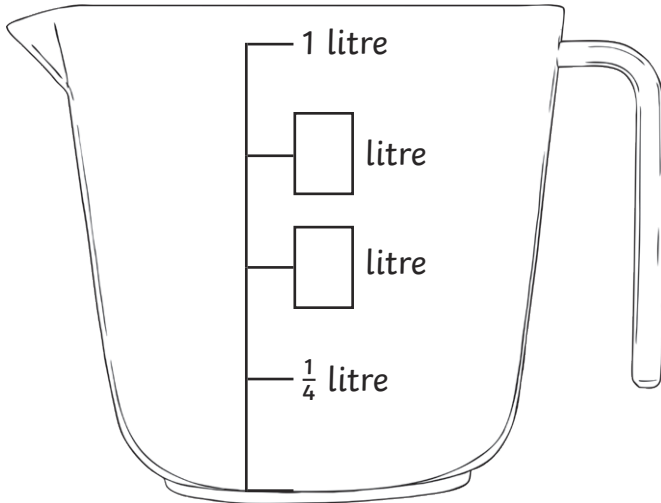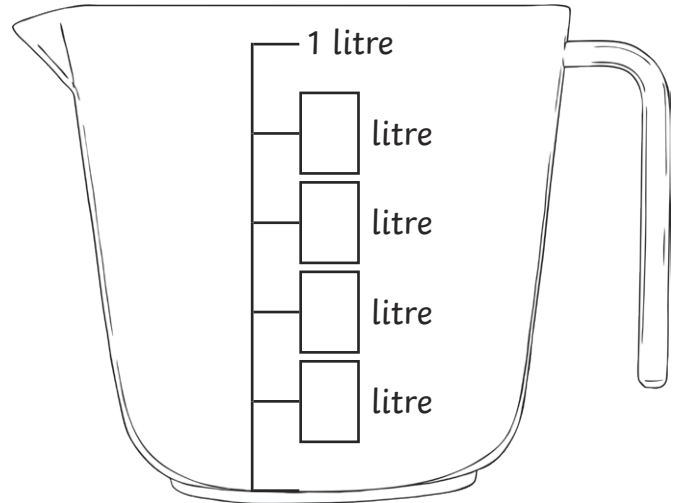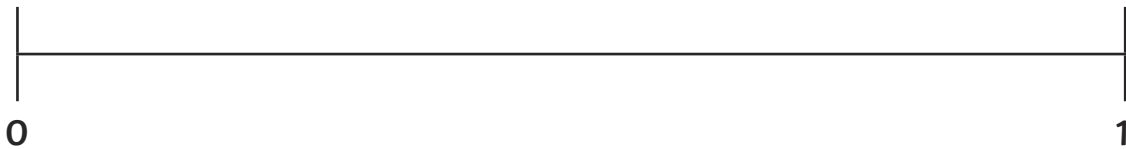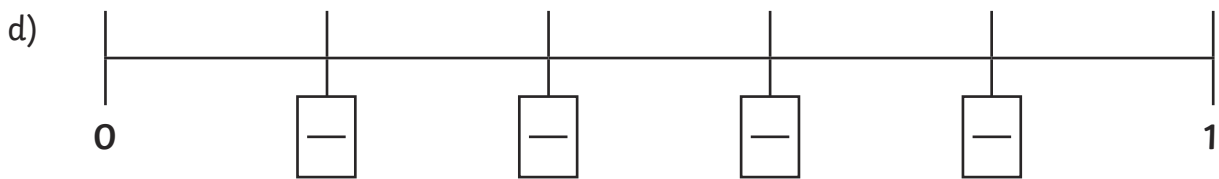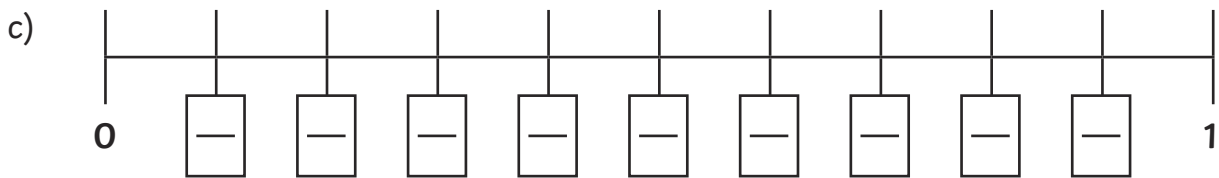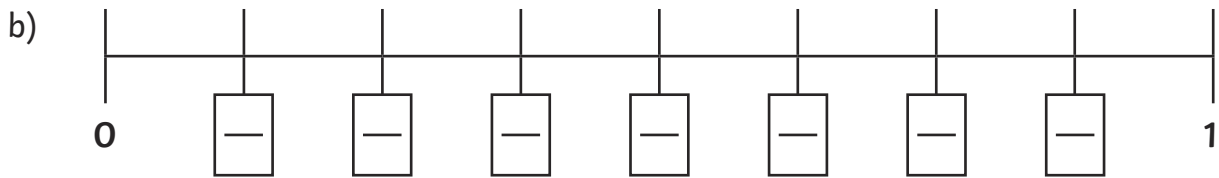
To reason about the position of fractions on number lines up to one whole.

1. Label the number lines.

a)

0 |——☐—☐—☐—☐—☐——| 1

b)

0 |—☐—☐—☐—☐—☐—☐—☐—| 1

c)

0 |☐—☐—☐—☐—☐—☐—☐—☐—☐| 1

d)

0 |——☐———☐———☐———☐——| 1
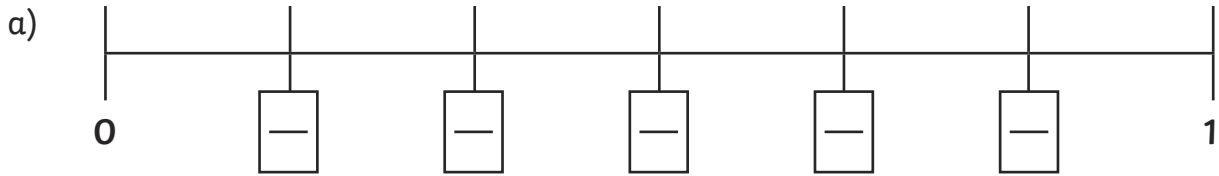
2. What fractions are the arrows pointing at?

a)

0 |————☐————| 1

b)

0 |—☐————☐——☐—| 1

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Maths | Fractions | Recognise and Use Fractions |
Lesson 3 of 4: Fractions on Number Lines

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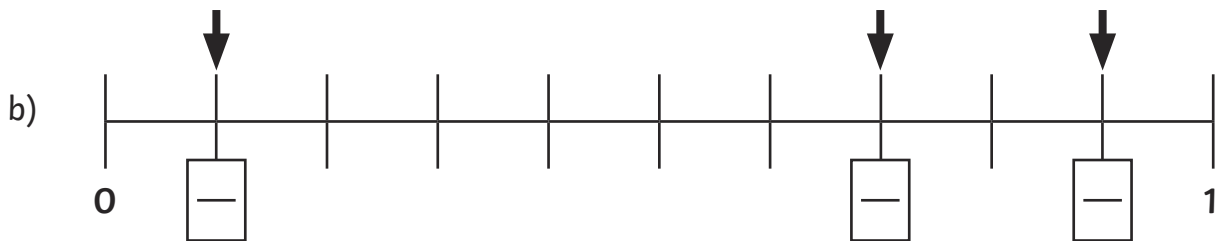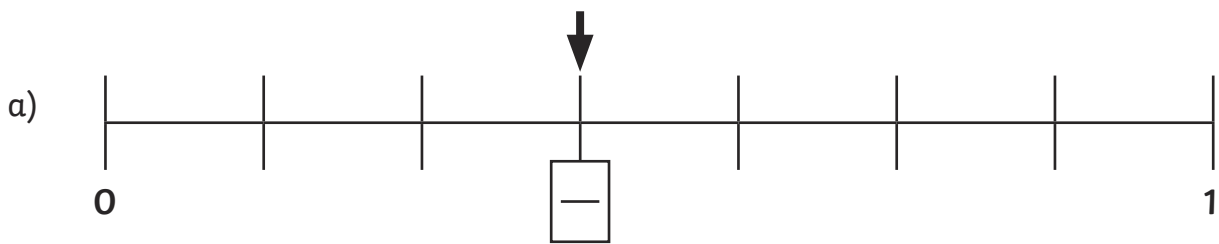
3. How tall is the plant?
   Write your answer as a fraction of a metre.

   The plant is $\dfrac{}{}$ m tall.

   1m
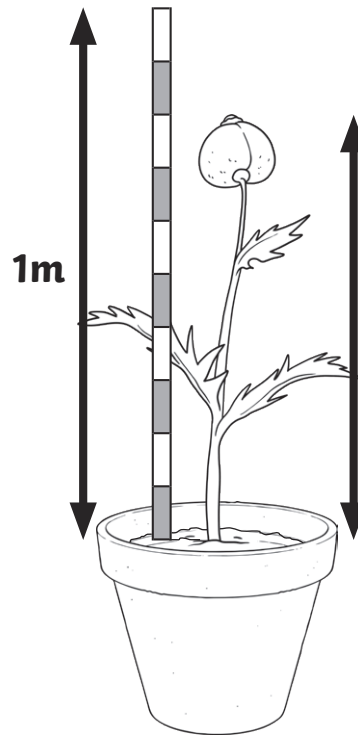
4. Which is greater, $\frac{2}{4}$ or $\frac{2}{3}$? Use the number line to help you. Explain your answer.

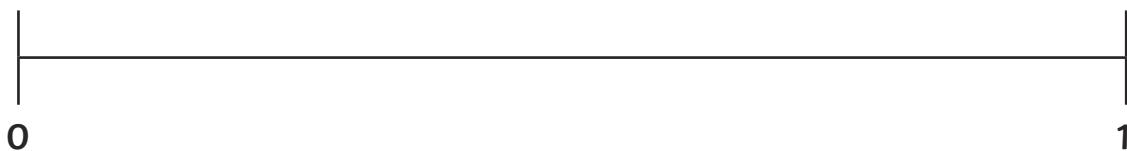   0 ———————————————————————— 1

   _____

   _____

   _____

   _____
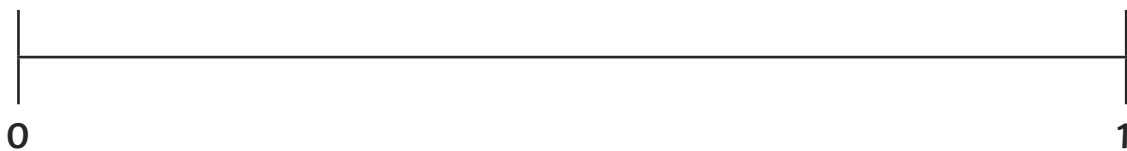
5. True or false? $\dfrac{2}{5} < \dfrac{2}{8}$ Use the number line to help you. Explain your answer.

   0 ———————————————————————— 1

   _____

   _____

   _____

   _____

Fractions on Number Lines **Answers**

1.

a)
0   $\frac{1}{8}$ $\frac{2}{8}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{5}{8}$ $\frac{6}{8}$ $\frac{7}{8}$ 1

b)
0   $\frac{1}{6}$ $\frac{2}{6}$ $\frac{3}{6}$ $\frac{4}{6}$ $\frac{5}{6}$ 1

c)
0   $\frac{1}{9}$ $\frac{2}{9}$ $\frac{3}{9}$ $\frac{4}{9}$ $\frac{5}{9}$ $\frac{6}{9}$ $\frac{7}{9}$ $\frac{8}{9}$ 1

2.

a)
0   $\frac{1}{5}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{4}{5}$ 1

b)
0   $\frac{1}{8}$ $\frac{2}{8}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{5}{8}$ $\frac{6}{8}$ $\frac{7}{8}$ 1

c)
0   $\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ 1

3.

a)
0   $\frac{1}{6}$ $\frac{4}{6}$ 1

b)
0   $\frac{1}{8}$ $\frac{4}{8}$ 1

4.

a)

$\frac{3}{4}$

0   1

b)

$\frac{4}{7}$

0   1

5.
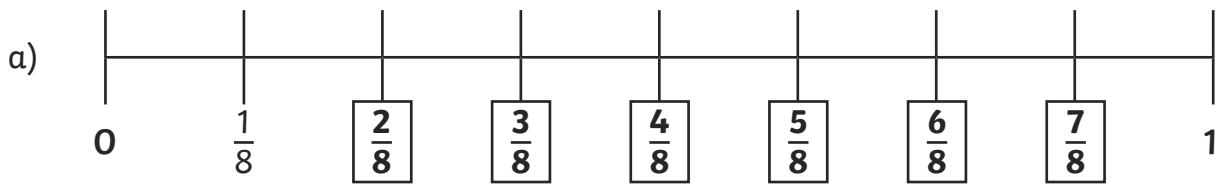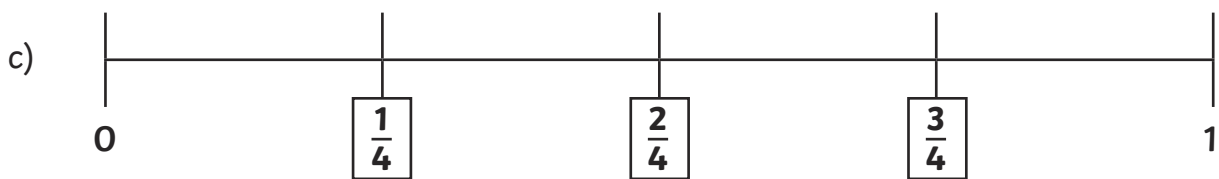

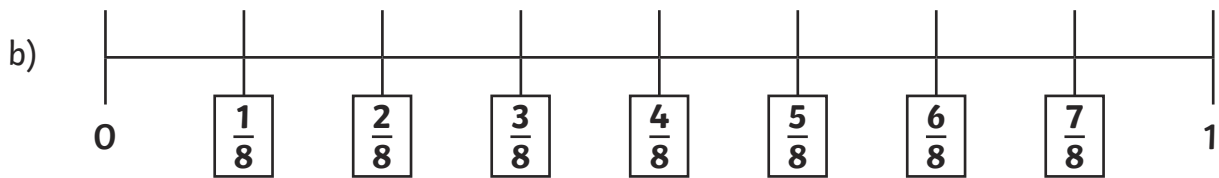0   1

Fractions on Number Lines **Answers**
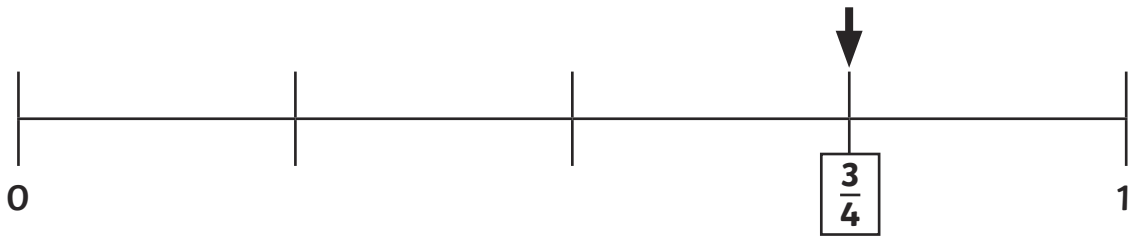
1.

a)

0 $\frac{1}{5}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{4}{5}$ 1

b)

0 $\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ 1

c)

0 $\frac{1}{9}$ $\frac{2}{9}$ $\frac{3}{9}$ $\frac{4}{9}$ $\frac{5}{9}$ $\frac{6}{9}$ $\frac{7}{9}$ $\frac{8}{9}$ 1

d)

0 $\frac{1}{7}$ $\frac{2}{7}$ $\frac{3}{7}$ $\frac{4}{7}$ $\frac{5}{7}$ $\frac{6}{7}$ 1

2.

a)

0 $\frac{2}{6}$ 1

b)

0 $\frac{3}{10}$ $\frac{8}{10}$ 1

3.

a)

1 litre

$\boxed{\frac{3}{4}}$ litre

$\boxed{\frac{2}{4}}$ litre

$\frac{1}{4}$ litre

b)

1 litre

$\boxed{\frac{4}{5}}$ litre

$\boxed{\frac{3}{5}}$ litre

$\boxed{\frac{2}{5}}$ litre

$\boxed{\frac{1}{5}}$ litre

4.

0 $\frac{7}{8}$ 1

5.

a)

0        $\frac{1}{5}$ $\frac{1}{3}$ 1
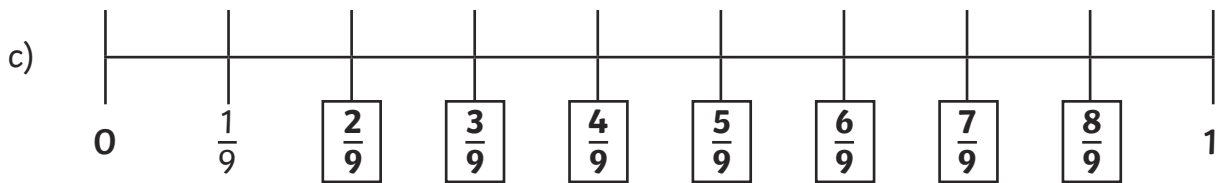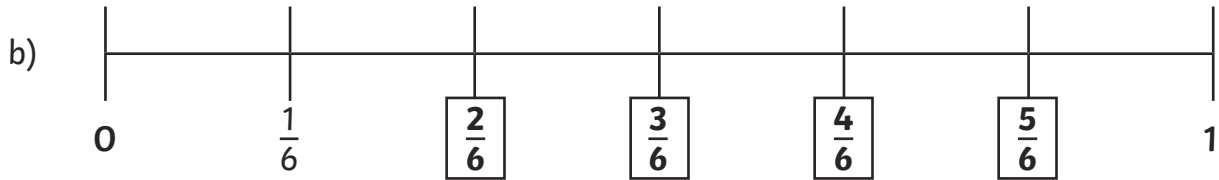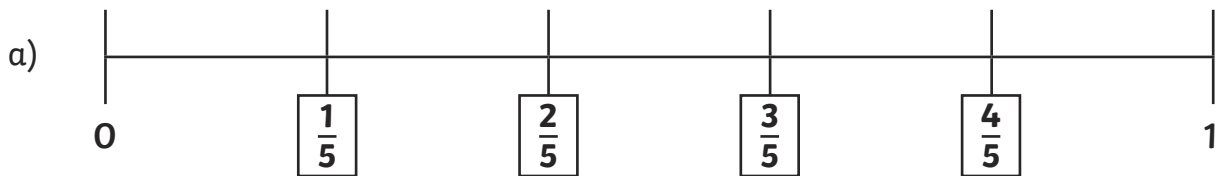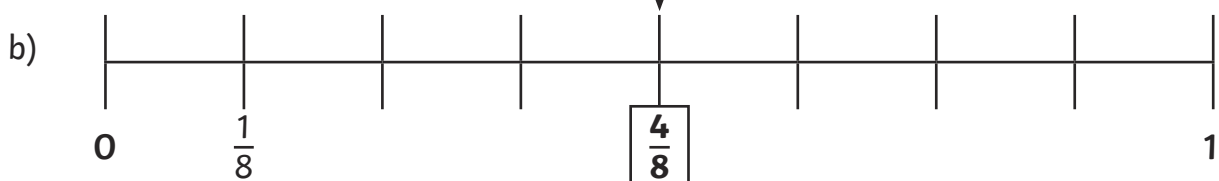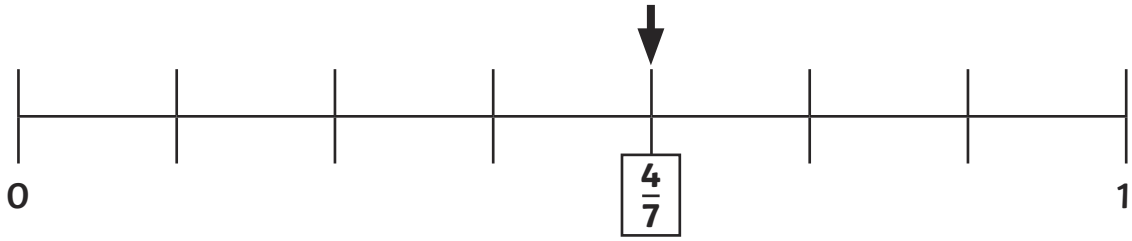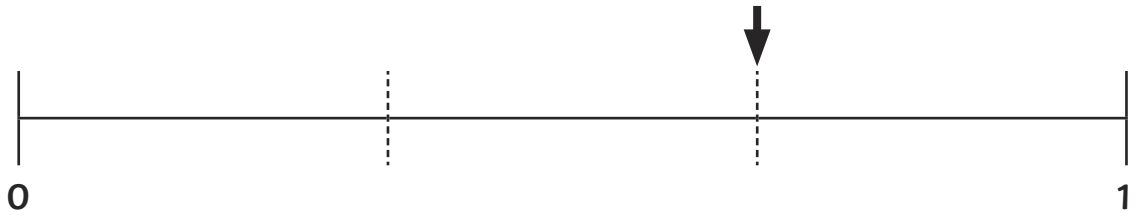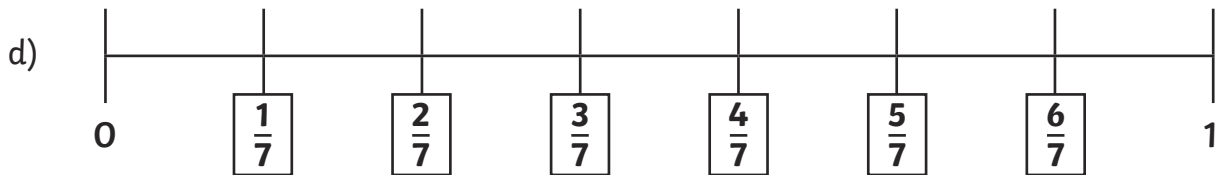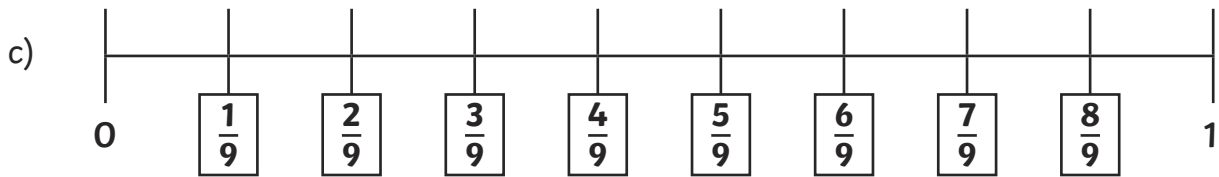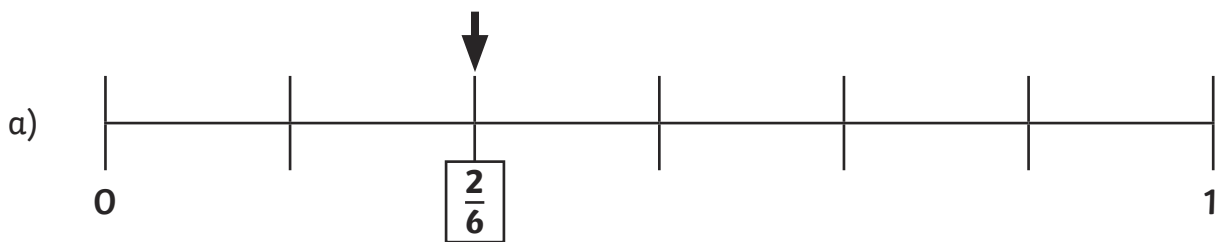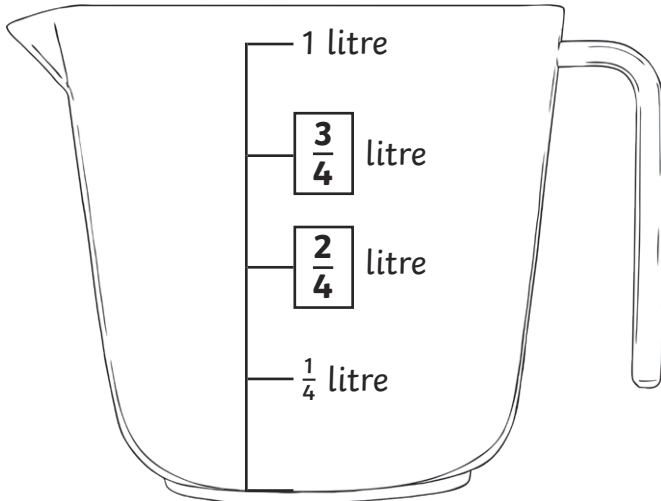
b) $\frac{1}{3}$ is greater than $\frac{1}{5}$ because $\frac{1}{3}$ is closer to 1 than $\frac{1}{5}$.
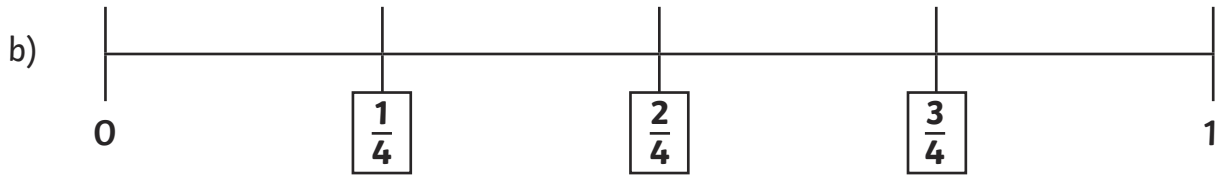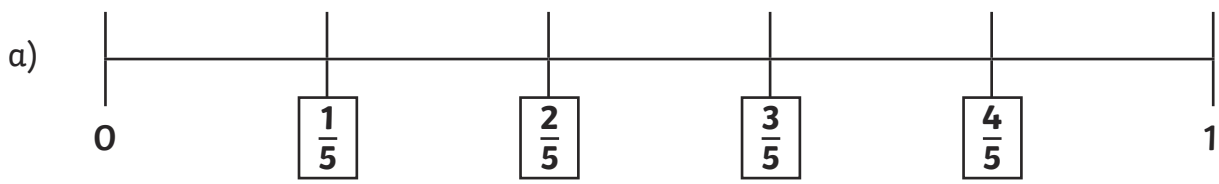**Accept other answers which acknowledge the position of the fractions on the number line.**

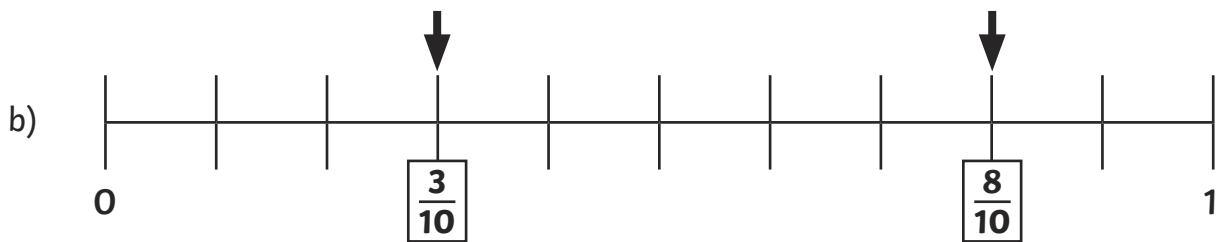# Fractions on Number Lines **Answers**

1.
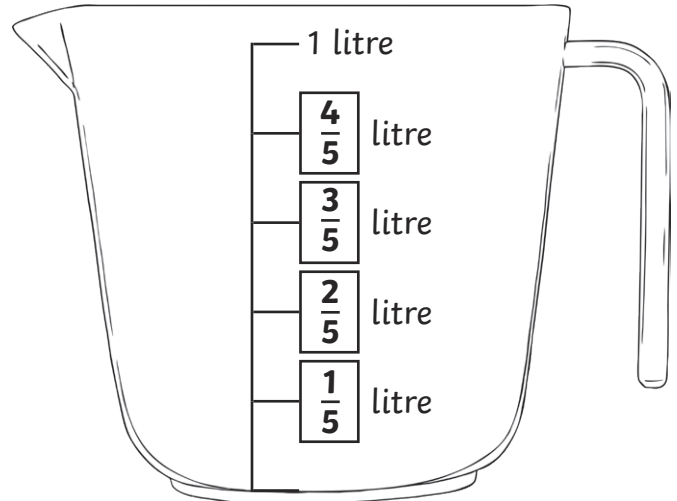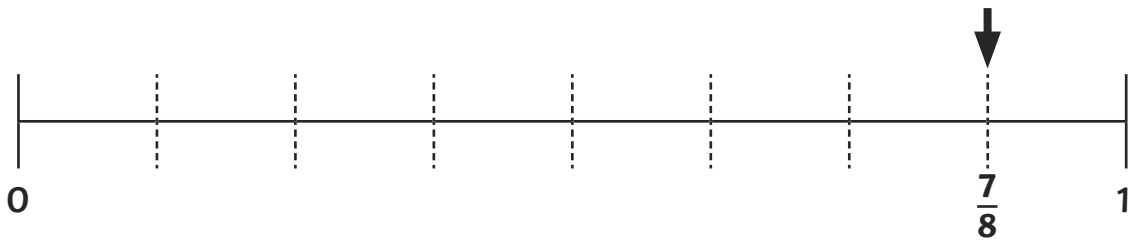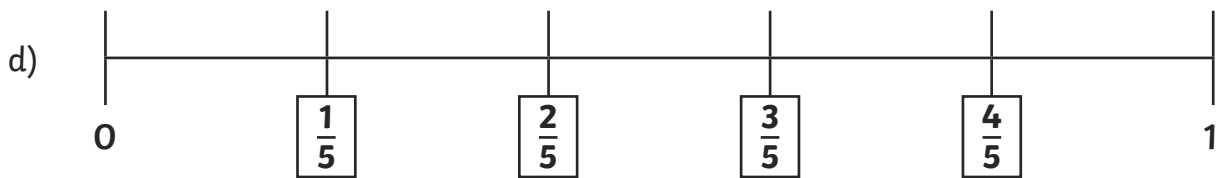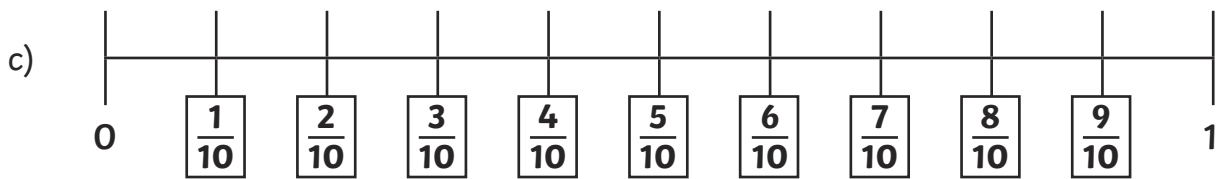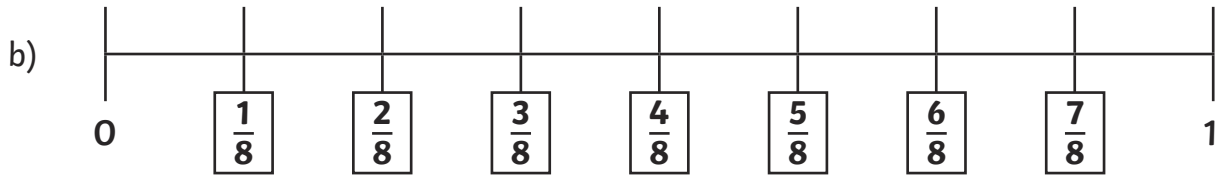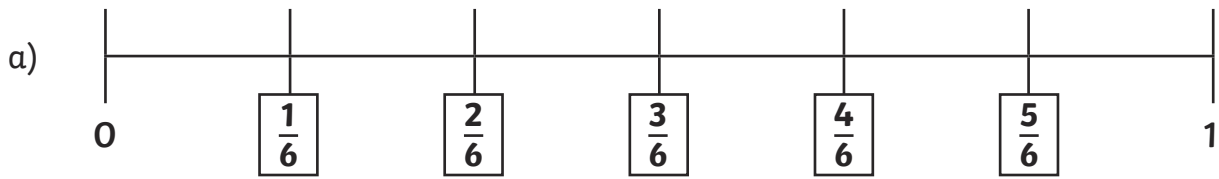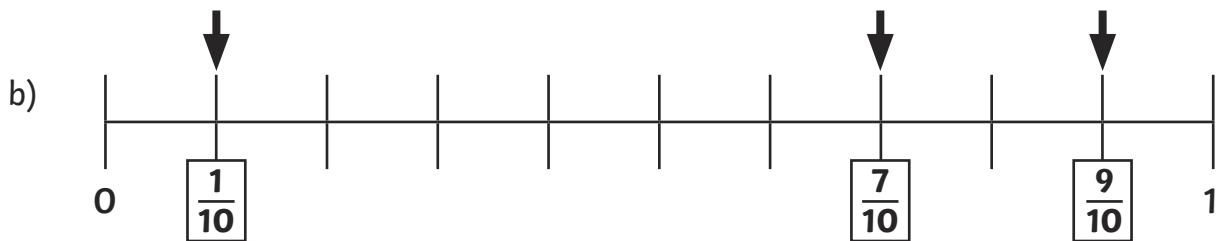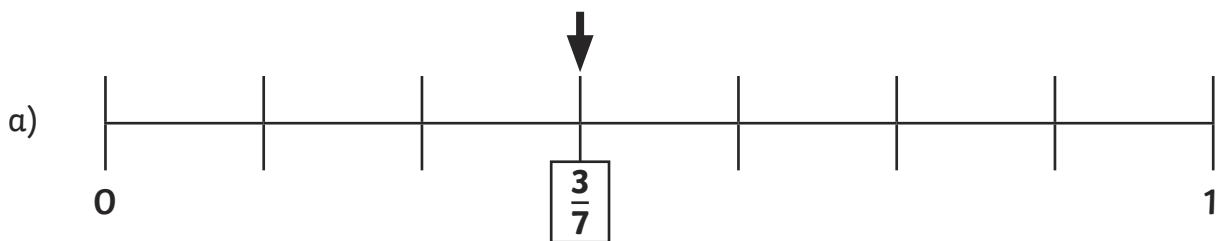
a)

$$0 \quad \frac{1}{6} \quad \frac{2}{6} \quad \frac{3}{6} \quad \frac{4}{6} \quad \frac{5}{6} \quad 1$$

b)

$$0 \quad \frac{1}{8} \quad \frac{2}{8} \quad \frac{3}{8} \quad \frac{4}{8} \quad \frac{5}{8} \quad \frac{6}{8} \quad \frac{7}{8} \quad 1$$

c)

$$0 \quad \frac{1}{10} \quad \frac{2}{10} \quad \frac{3}{10} \quad \frac{4}{10} \quad \frac{5}{10} \quad \frac{6}{10} \quad \frac{7}{10} \quad \frac{8}{10} \quad \frac{9}{10} \quad 1$$

d)

$$0 \quad \frac{1}{5} \quad \frac{2}{5} \quad \frac{3}{5} \quad \frac{4}{5} \quad 1$$

2.

a)

$$0 \quad \frac{3}{7} \quad 1$$

b)

$$0 \quad \frac{1}{10} \quad \frac{7}{10} \quad \frac{9}{10} \quad 1$$

3.

The plant is $\boxed{\dfrac{8}{10}}$ m tall.

1m

4.

0 $\dfrac{2}{4}$ $\dfrac{2}{3}$ 1
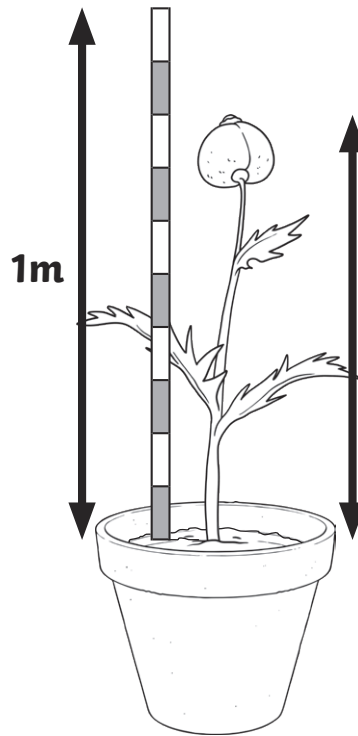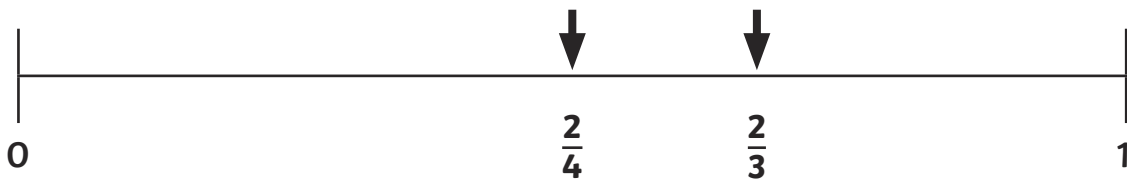
$\dfrac{2}{3}$ **is greater than** $\dfrac{2}{4}$ **because** $\dfrac{2}{3}$ **is closer to 1 than** $\dfrac{2}{4}$ **.**

Accept other answers which acknowledge the position of the fractions on the number line.

5.

0 $\dfrac{2}{8}$ $\dfrac{2}{5}$ 1
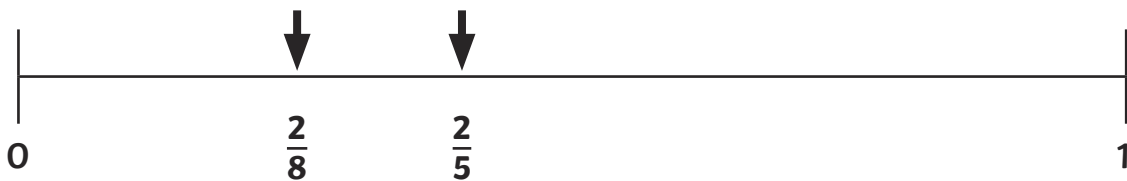
False. $\dfrac{2}{5}$ **is greater than** $\dfrac{2}{8}$ **because** $\dfrac{2}{8}$ **is closer to 0 than** $\dfrac{2}{5}$ **.**

Accept other answers which acknowledge the position of the fractions on the number line.