

Lesson 7 – Pictorial Representations and Bar Models

Starter

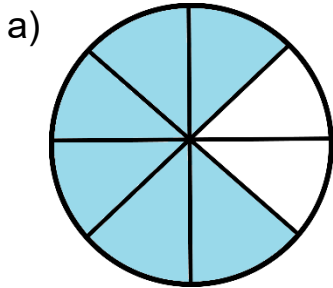
- 1) Write down a number with 4 as the thousands digit
- 2) Put an inequality sign (< or >) between these numbers: 0.56 0.506
- 3) Write down the biggest 5 digit number you could make with these digits: 4,2,3,7,8
- 4) True or false: A number with thirty seven hundredths is smaller than a number with 3 tenths and 7 hundredths.

Starter Answers

- 1) 4567 2) > 3) 87432 4) False, they are equal

Example 1

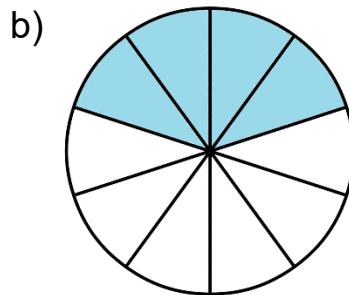
What fraction of each shape is shaded?



6 out of 8 sections are shaded.

The fraction that is shaded is $\frac{6}{8}$

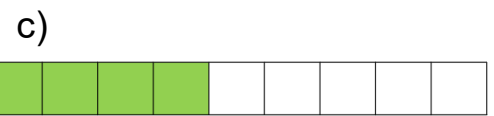
We could also write this as $\frac{3}{4}$



4 out of 10 sections are shaded

The fraction that is shaded is $\frac{4}{10}$

We could write this as $\frac{2}{5}$



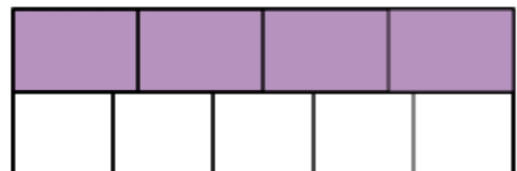
4 out of 9 sections are shaded so the fraction is $\frac{4}{9}$

Example 2

Dan says “The fraction of this shape that is shaded is $\frac{4}{9}$ because 4 out of 9 of the sections are shaded”.

Explain why Dan is wrong.

What fraction is shaded?

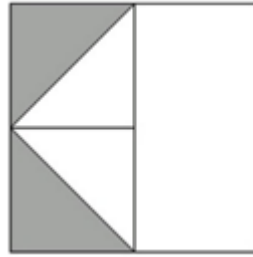


Dan is wrong because the sections are not equal in size.

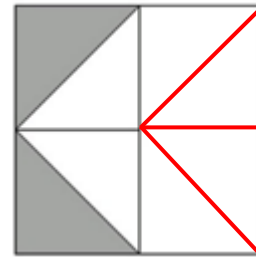
We can see that half of the shape is shaded in so the fraction should be $\frac{1}{2}$

Example 3

What fraction of this shape is shaded?



We need to split the shape into equal sized sections.

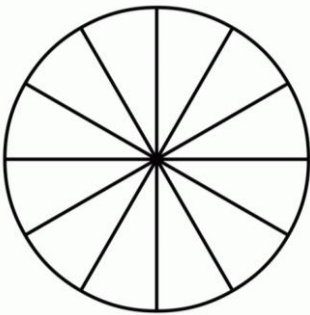


Now we can see there are 8 equal sections and 2 of them are shaded.

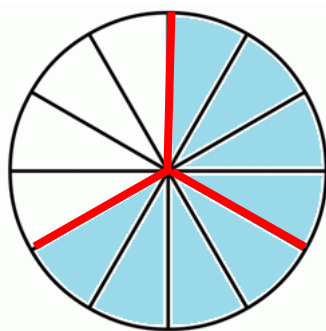
So the fraction is $\frac{2}{8}$ (or $\frac{1}{4}$)

Example 4

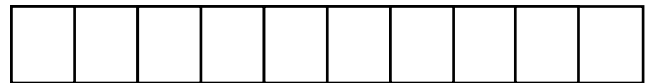
a) Shade in $\frac{2}{3}$ of this shape



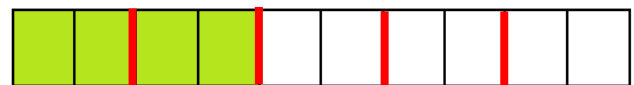
Split the shape into 3 equal parts
Shade in 2 of these parts



b) Shade in $\frac{2}{5}$ of this shape

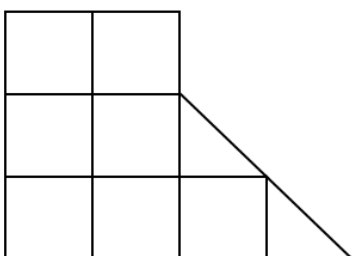


Split the shape into 5 equal parts
Colour in 2 of these parts



Example 5

Shade in $\frac{1}{4}$ of this shape



We need to split the shape into equal sized sections
Split the shape into 4 parts
Shade in one of these parts

