1 **a** State the denominator of this proper fraction: $\frac{2}{9}$.

b State the numerator of this improper fraction: $\frac{7}{5}$.

2 Group the following list of fractions into proper fractions, improper fractions and whole numbers.

A $\frac{7}{6}$ **B** $\frac{2}{7}$ **C** $\frac{50}{7}$ **D** $\frac{3}{3}$

E $\frac{3}{4}$ **F** $\frac{5}{11}$ **G** $\frac{1}{99}$ **H** $\frac{9}{4}$

I $\frac{11}{8}$ **J** $\frac{10}{10}$ **K** $\frac{5}{1}$ **L** $\frac{121}{5}$

3 Answer the following questions for each of the pizzas (**A** to **D**) drawn below.

a Into how many pieces has the whole pizza been divided?

b How many pieces have been selected (shaded)?

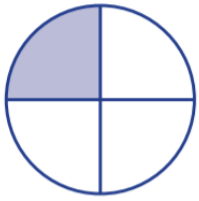
c In representing the shaded fraction of the pizza:

i what must the denominator equal?

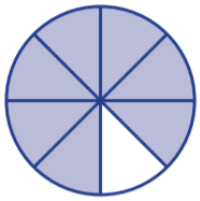
ii what must the numerator equal?

iii write the amount of pizza selected (shaded) as a fraction.

A



B



C

D

4 Find the whole numbers among the following list of fractions. Hint: There are five whole numbers to find.

A $\frac{15}{4}$ **B** $\frac{14}{8}$ **C** $\frac{12}{5}$ **D** $\frac{30}{15}$

E $\frac{17}{3}$ **F** $\frac{30}{12}$ **G** $\frac{12}{12}$ **H** $\frac{33}{10}$

I $\frac{53}{3}$ **J** $\frac{9}{3}$ **K** $\frac{50}{20}$ **L** $\frac{28}{7}$

M $\frac{96}{8}$ **N** $\frac{24}{5}$ **O** $\frac{62}{4}$ **P** $\frac{1031}{2}$

5 Represent the following fractions on a number line.

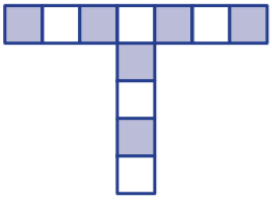
a $\frac{3}{7}$ and $\frac{6}{7}$ **b** $\frac{2}{3}$ and $\frac{5}{3}$

6 Represent each of these fractions in three different ways, using a rectangle divided into equal regions.

a $\frac{1}{4}$ **b** $\frac{3}{8}$ **c** $\frac{2}{6}$

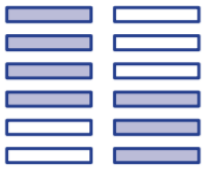
10 For each of the following, state what fraction of the diagram is shaded.

a



b

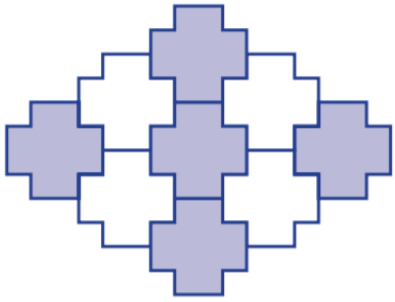
c



d

e

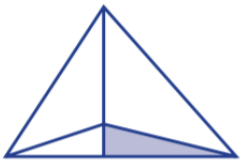
f



13 Which diagram has one-quarter shaded?

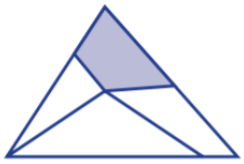
A

B



C

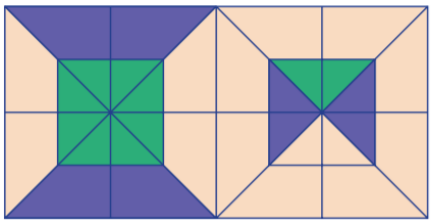
D



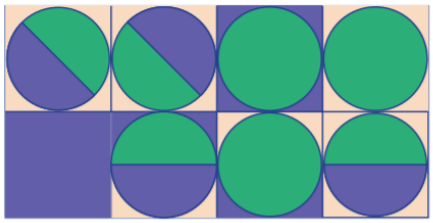
16 **a** For each of the diagrams shown, work out what fraction of the rectangle is coloured blue. Explain how you arrived at each of your answers.

b Redraw the shapes in order from the most blue to least blue.

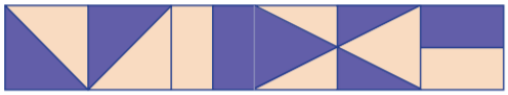
i



ii



iii



iv