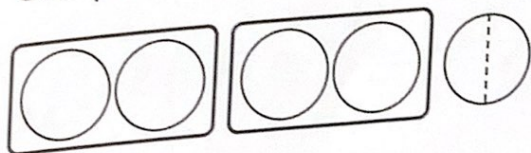


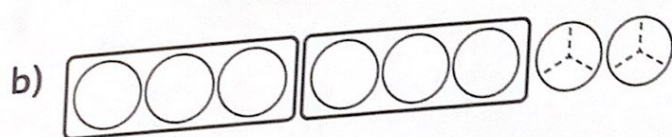
Fractions as division 2

- 1 a) Complete each division.



$$5 \div 2 = 2 \text{ remainder } 1$$

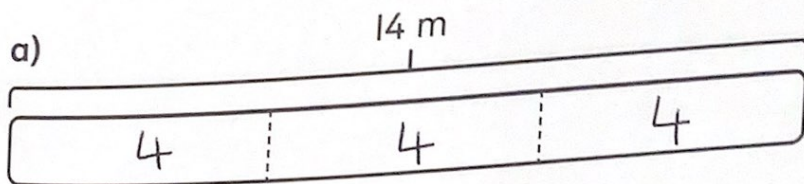
$$5 \div 2 = 2 \frac{1}{2}$$



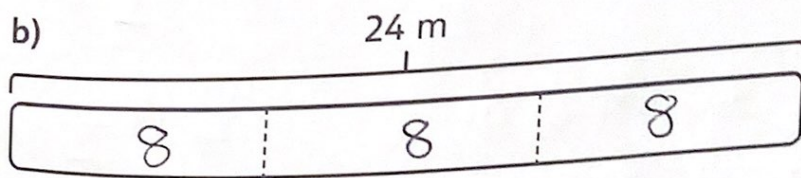
$$8 \div 3 = 2 \text{ remainder } 2$$

$$8 \div 3 = 2 \frac{2}{3}$$

- 2 A carpenter cuts each length of wood into three equal planks. How long is each plank?



$$14 \div 3 = 4 \frac{2}{3} \text{ m}$$



$$24 \div 3 = 8 \text{ m}$$

- 3 Richard has a 250 g bar of chocolate. He shares it equally between 4 people. How many grams of chocolate does each person receive?

Handwritten solution:

$$4 \overline{) 250} \quad 62 \text{ r } 2$$

$$62 \frac{2}{4} = 62 \frac{1}{2} \text{ g each}$$

4 $96 \div 8 = 12$

Use this division fact to help complete these division statements.

a) $97 \div 8 = 12$ remainder $\boxed{1} = 12 \frac{\boxed{1}}{8}$

d) $102 \div 8 = \boxed{12} \frac{\boxed{3}}{\boxed{4}}$

b) $98 \div 8 = 12 \frac{\boxed{2}}{8} = 12 \frac{\boxed{1}}{4}$

e) $\boxed{193} \div 8 = 24 \frac{1}{8}$

c) $100 \div 8 = \boxed{12} \frac{\boxed{1}}{\boxed{2}}$

$12 \text{ r } 4 = 12 \frac{4}{8}$ and $\frac{4}{8} = \frac{1}{2}$.

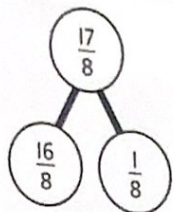
d) $102 \div 8 = 12 \text{ r } 6$ so $12 \frac{6}{8}$
 $\frac{6}{8} = \frac{3}{4}$ so $12 \frac{3}{4}$

5 Complete the table.

Division with remainder	Mixed number	Improper fraction
$6 \div 4 = 1$ remainder 2	$1 \frac{2}{4}$ or $1 \frac{\boxed{1}}{\boxed{2}}$	$\frac{6}{4}$ or $\frac{3}{\boxed{2}}$
$18 \div 4 = \boxed{4}$ remainder $\boxed{2}$	$4 \frac{2}{4}$ or $\frac{1}{2}$	$\frac{18}{4}$ or $\frac{9}{2}$
$22 \div 5 = 4$ remainder 2.	$4 \frac{2}{5}$	$\frac{22}{5}$
$26 \div 5 = 5$ remainder 1.	$5 \frac{1}{5}$	$\frac{26}{5}$
$58 \div 10 = 5$ remainder 8	$5 \frac{8}{10}$ or $\frac{4}{5}$	$\frac{58}{10}$ or $\frac{\boxed{29}}{5}$

- 6 Andy has a method for dividing 17 by 8.

$$\frac{16}{8} = \frac{8}{8} + \frac{8}{8}$$

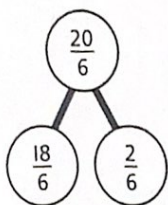


I will solve $17 \div 8$ as an improper fraction.

$$17 \div 8 = \frac{17}{8} = \frac{16}{8} + \frac{1}{8} = 2 + \frac{1}{8} = 2\frac{1}{8}$$

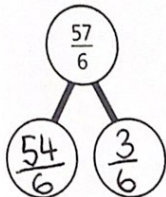
Try using Andy's method to solve these divisions.

a)



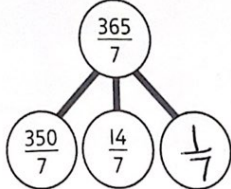
$$20 \div 6 = \boxed{3} \frac{\boxed{2}}{\boxed{6}} \text{ or } 3\frac{1}{3}$$

b)



$$57 \div 6 = \boxed{9} \frac{\boxed{3}}{\boxed{6}} \text{ or } 9\frac{1}{2}$$

c)



$$365 \div 7 = \boxed{52} \frac{\boxed{1}}{\boxed{7}}$$

Reflect

Complete the division, showing the remainder in three different ways.

$$150 \div 4 = ?$$

$$\begin{array}{r} 37 \text{ r } 2 \\ 4 \overline{) 150} \end{array}$$

① $150 \div 4 = 37 \text{ r } 2$

② and ③ $150 \div 4 = 37\frac{2}{4} \text{ or } 37\frac{1}{2}$

because $\frac{2}{4} = \frac{1}{2}$