

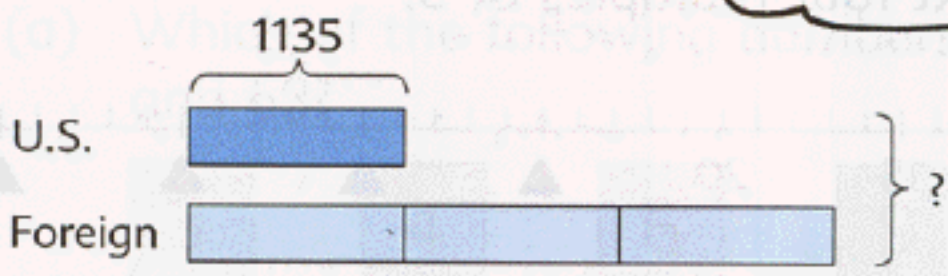


# Multiplication and Division of Whole Numbers

## 1 Multiplication by a 1-digit Number, Division by a 1-digit Number and by 10

Sean has 1135 U.S. stamps.  
 He has 3 times as many foreign stamps as U.S. stamps.  
 (a) How many stamps does he have altogether?

There are more foreign stamps than U.S. stamps.



$$1135 \times 4 = 4540$$

$$\begin{array}{r} 1135 \\ \times 4 \\ \hline 4540 \end{array}$$

He has 4540 stamps altogether.

Multiply 1135 by 4.

$$\begin{array}{r} 2 \\ 1135 \\ \times 4 \\ \hline 0 \end{array}$$

Multiply 5 ones by 4.

$$\begin{array}{r} 12 \\ 1135 \\ \times 4 \\ \hline 40 \end{array}$$

Multiply 3 tens by 4.  
Add 2 tens.

$$\begin{array}{r} 12 \\ 1135 \\ \times 4 \\ \hline 540 \end{array}$$

Multiply 1 hundred by 4.  
Add 1 hundred.

$$\begin{array}{r} 12 \\ 1135 \\ \times 4 \\ \hline 4540 \end{array}$$

Multiply 1 thousand by 4.

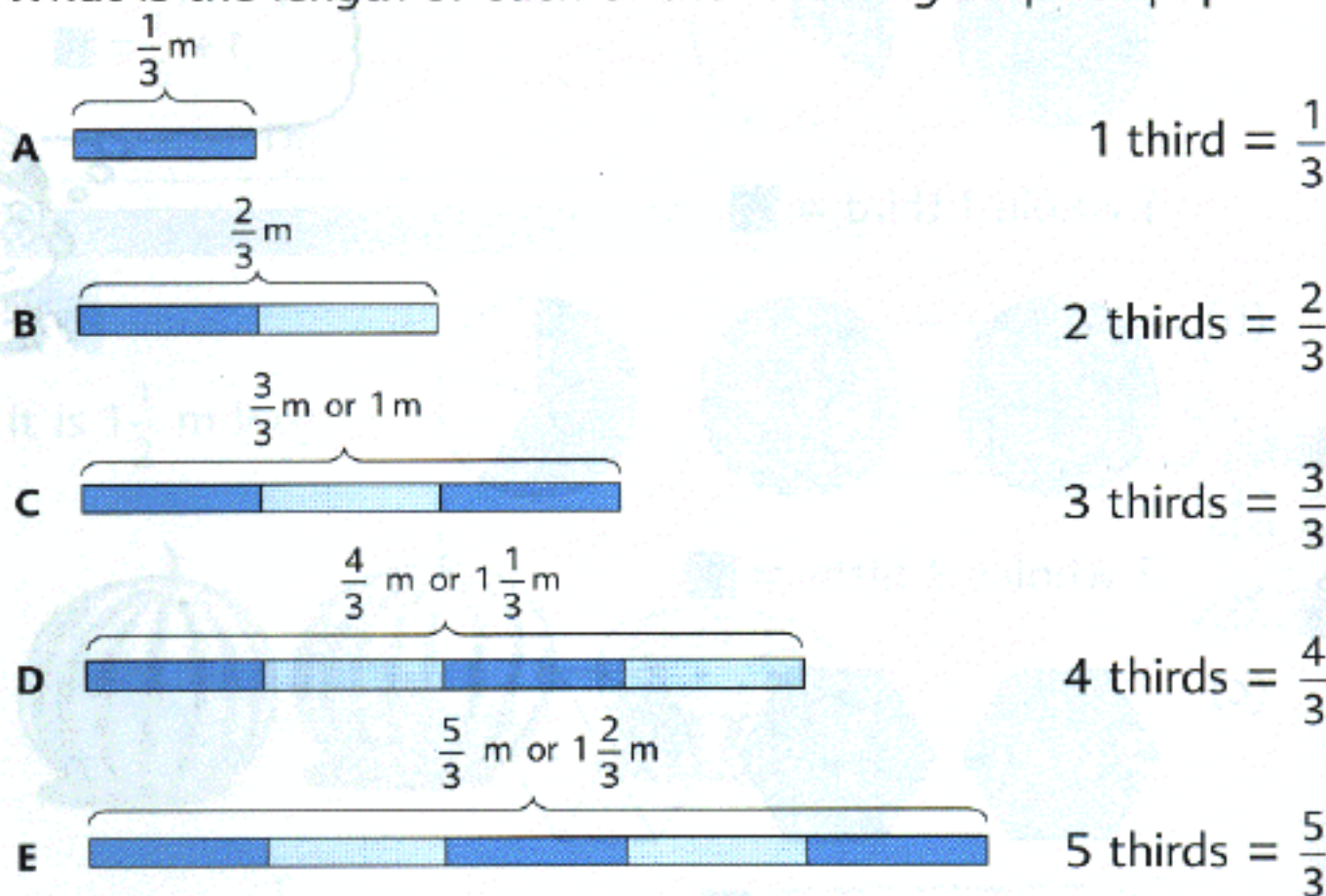


When 1135 is multiplied by 4, the **product** is 4540.



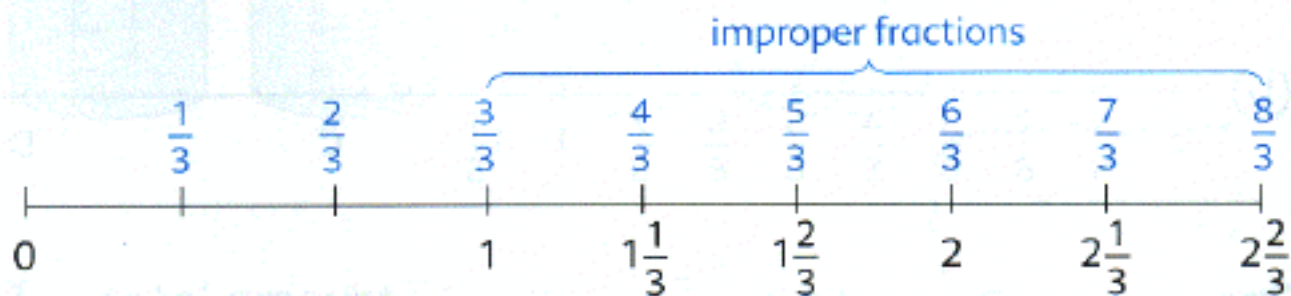
## 4 Improper Fractions

What is the length of each of the following strips of paper?



$\frac{3}{3}$ ,  $\frac{4}{3}$  and  $\frac{5}{3}$  are **improper fractions**.

An improper fraction is equal to or greater than 1.



An improper fraction can be expressed as a whole number or a mixed number.



## PRACTICE 3C

Multiply. Give each answer in its simplest form.

(a)

1.  $\frac{1}{3} \times 18$

2.  $36 \times \frac{1}{4}$

(b)

$\frac{3}{4} \times 32$

$15 \times \frac{2}{5}$

(c)

$\frac{1}{6} \times 4$

$6 \times \frac{1}{8}$

(d)

$\frac{5}{9} \times 15$

$10 \times \frac{3}{4}$

3. Peter had a board 3 m long.

He used  $\frac{3}{4}$  of its length as a bookshelf.

How long was the bookshelf?

4. Jane practices on the piano for  $\frac{3}{4}$  hour a day.

How many hours does she practice on the piano in 5 days?

5. In a class,  $\frac{2}{5}$  of the students wear glasses.

(a) What fraction of the students do **not** wear glasses?

(b) If 16 students wear glasses, how many students are there altogether?

6. Nicole bought 30 eggs.

She used  $\frac{2}{3}$  of the eggs to bake cakes.

How many eggs had she left?

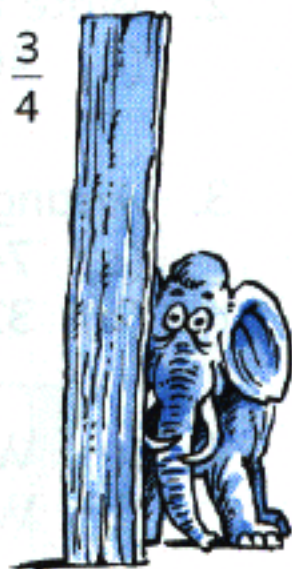
7. Lily bought some picture cards.

She gave  $\frac{1}{3}$  of them to Matthew.

If she gave 8 picture cards to Matthew, how many picture cards did she buy?

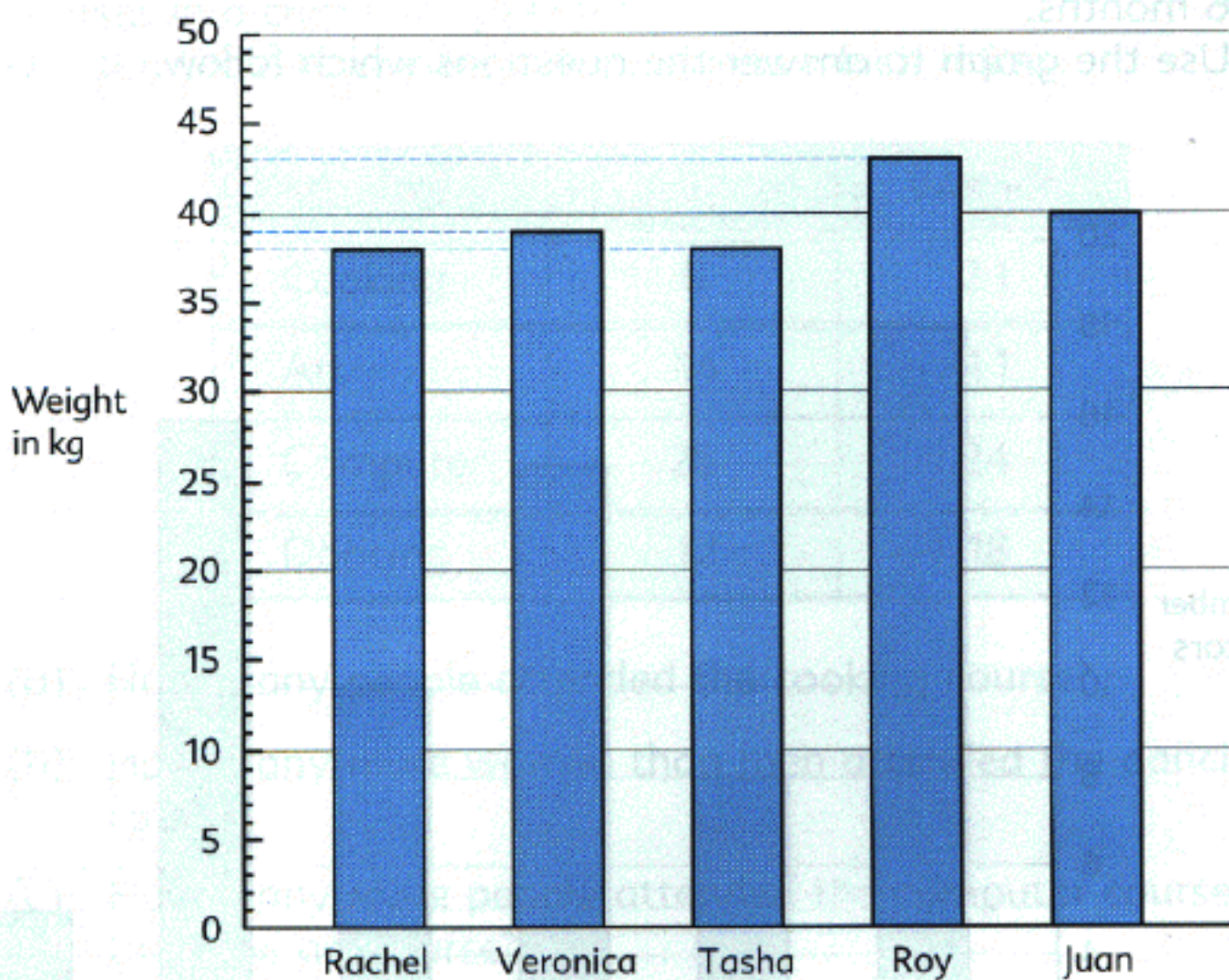
8. Kevin spent  $\frac{1}{4}$  of his money on a storybook.

If the storybook cost \$6, how much money did he have at first?





The data can also be presented in a bar graph:



1. This table shows the number of storybooks read by four children in one month.

Name	Number of books
David	8
Pablo	16
Lauren	14
Rosa	10

- (a) Who read the greatest number of storybooks in one month?
- (b) How many more storybooks did Lauren read than David in one month?
- (c) Draw a bar graph to show the data given in the table.