

Fraction Strategies

Trains

AC

EA

AA

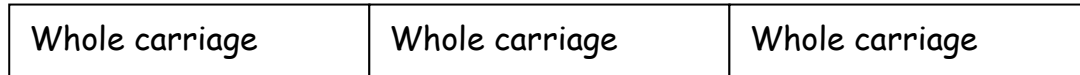
AM

AP

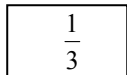
I am learning to find where fractions live amongst the whole numbers.

Example:

A train is made up of three whole carriages, as shown below.



The shape below represents one third of a whole carriage.



How many one-third carriages will you need to make up the train above?

--	--	--	--	--	--	--	--	--

Nine one-third carriages will make a train with three whole carriages.

Exercise 1

- A train is made up of two whole carriages.

--	--

 - How many one-half carriages would be needed to make the train above?

--
 - How many one-quarter carriages would be needed to make the train above?

--
- A train is made up of four whole carriages.
 - How many one-third carriages would be needed to make the train?
 - How many one-quarter carriages would be needed to make the train?
 - How many one-fifth carriages would be needed to make the train?
- A train is made up of six whole carriages.
 - How many one-third carriages would be needed to make the train?
 - How many one-fifth carriages would be needed to make the train?
 - How many one-quarter carriages would be needed to make the train?

Exercise 2

- A train is made up of eighteen one-half carriages. How many whole carriages does the train have?
- A train is made up of twenty one-quarter carriages. How many whole carriages does the train have?
- A train is made up of thirty one-third carriages. How many whole carriages does the train have?
- A train is made up of thirty-five one-fifth carriages. How many whole carriages does the train have?

Exercise 3

- 1) A train is made up of nineteen one-quarter carriages.
 - a) How many whole carriages does the train have?
 - b) How many quarter carriages are left over after the whole carriages have been made?

- 2) A train is made up of twenty one-third carriages.
 - a) How many whole carriages does the train have?
 - b) How many third carriages are left over after the whole carriages have been made?

- 3) A train is made up of fifty-three one-fifth carriages.
 - a) How many whole carriages does the train have?
 - b) How many fifth carriages are left over after the whole carriages have been made?

Exercise 4

The numbers in this exercise can also be written as a mixed number. A mixed number has two parts: a whole number and a fraction. For example: $2\frac{1}{2}$: the two

shows the whole number and the $\frac{1}{2}$ shows the fraction.

Write these numbers as mixed numbers:

- | | |
|---------------------|----------------------|
| 1) $\frac{5}{2}$ | (2) $\frac{9}{2}$ |
| 3) $\frac{7}{3}$ | (4) $\frac{9}{4}$ |
| 5) $\frac{8}{5}$ | (6) $\frac{15}{2}$ |
| 7) $\frac{22}{4}$ | (8) $\frac{35}{3}$ |
| 9) $\frac{75}{10}$ | (10) $\frac{52}{5}$ |
| 11) $\frac{101}{4}$ | (12) $\frac{48}{5}$ |
| 13) $\frac{23}{3}$ | (14) $\frac{45}{10}$ |
| 15) $\frac{32}{5}$ | (16) $\frac{64}{10}$ |
| 17) $\frac{82}{4}$ | (18) $\frac{43}{5}$ |
| 19) $\frac{25}{2}$ | (20) $\frac{55}{4}$ |

Trains Answer page

Exercise 1

- 1) (a) 4 (b) 8
2) (a) 12 (b) 16 (c) 20
3) (a) 18 (b) 30 (c) 24

Exercise 2

- 1) 9
2) 5
3) 10
4) 7

Exercise 3

- 1) (a) 4 (b) 3
2) (a) 6 (b) 2
3) (a) 10 (b) 3

Exercise 4

- 1) $2\frac{1}{2}$ (2) $4\frac{1}{2}$ (3) $2\frac{1}{3}$
4) $2\frac{1}{4}$ (5) $1\frac{3}{5}$ (6) $7\frac{1}{2}$
7) $5\frac{2}{4}$ or $5\frac{1}{2}$ (8) $11\frac{2}{3}$ (9) $7\frac{5}{10}$ or $7\frac{1}{2}$
10) $10\frac{2}{5}$ (11) $25\frac{1}{4}$ (12) $9\frac{3}{5}$
13) $7\frac{2}{3}$ (14) $4\frac{5}{10}$ or $4\frac{1}{2}$ (15) $6\frac{2}{5}$
16) $6\frac{4}{10}$ or $6\frac{2}{5}$ (17) $20\frac{2}{4}$ or $20\frac{1}{2}$ (18) $8\frac{3}{5}$
19) $12\frac{1}{2}$ (20) $13\frac{3}{4}$