Choosing any starting card, decide if the statement is true or false to get your next card. Note down the letters as you follow the path through the 16 cards. When you have finished, find the correct starting letter to spell out the final task.

1	$\frac{2}{5} + \frac{3}{12} = \frac{a}{20}$	True? Go to 7.	2	$\frac{3}{4} + \frac{2}{5} = b \frac{3}{20}$	True? Go to 15.
1	<i>a</i> = 13	False? Go to 9.	Т	<i>b</i> = 1	False? Go to 7.
3	$\frac{3}{4} \times \frac{2}{7} = \frac{c}{13}$	True? Go to 12.	4	$\frac{4}{5} - \frac{1}{2} = \frac{d}{10}$	True? Go to 16.
Н	<i>c</i> = 3	False? Go to 11.	D	d = 4	False? Go to 3.
5	$\frac{12}{20}=\frac{e}{5}$	True? Go to 2.	6	$\frac{7}{3}=2\frac{f}{3}$	True? Go to 9.
0	e = 4	False? Go to 8.	F	f = 1	False? Go to 3.
7	$\frac{2}{3} \div \frac{4}{7} = 1\frac{g}{6}$	True? Go to 11.	8	$2\frac{7}{11} = \frac{h}{11}$	True? Go to 12.
X	<i>g</i> = 2	False? Go to 2.	F	h = 27	False? Go to 14.
9	$\frac{1}{10} + \frac{2}{3} = \frac{i}{30}$	True? Go to 13.	10	$\frac{3}{20} \times \frac{10}{11} = \frac{j}{22}$	True?
	10 3 30	G0 t0 13.		20 ^ 11 _ 22	Go to 16.
1	10 3 30 $i = 23$	False? Go to 5.	L	20 ^ 11	Go to 16. False? Go to 13.
1 11		False?			False?
1 11 A	i = 23	False? Go to 5.	L	<i>j</i> = 3	False? Go to 13.
	$i = 23$ $\frac{3}{20} \div \frac{10}{11} = \frac{k}{200}$	False? Go to 5. True? Go to 3. False?	L 12	$j = 3$ $\frac{10}{11} \div \frac{3}{20} = m \frac{2}{33}$	False? Go to 13. True? Go to 1. False?
Α	$i = 23$ $\frac{3}{20} \div \frac{10}{11} = \frac{k}{200}$ $k = 14$	False? Go to 5. True? Go to 3. False? Go to 10. True?	12 S	$j = 3$ $\frac{10}{11} \div \frac{3}{20} = m \frac{2}{33}$ $m = 6$	False? Go to 13. True? Go to 1. False? Go to 16. True?
A 13	$i = 23$ $\frac{3}{20} \div \frac{10}{11} = \frac{k}{200}$ $k = 14$ $\frac{3}{7} \times \frac{10}{11} = \frac{n}{77}$	False? Go to 5. True? Go to 3. False? Go to 10. True? Go to 4. False?	L 12 S 14	$j = 3$ $\frac{10}{11} \div \frac{3}{20} = m \frac{2}{33}$ $m = 6$ $6\frac{10}{11} = \frac{p}{11}$	False? Go to 13. True? Go to 1. False? Go to 16. True? Go to 3. False?

Teaching notes

This resource contains 16 fraction calculations, including addition, subtraction, multiplication, division and converting between mixed and improper fractions. Students must decide if the calculations are true or false to find the correct order of cards.

You can decide whether to cut out the cards or not – the activity works well either way. You could even decide to use this activity as a treasure hunt, by photocopying the cards onto A3, cutting out and hanging around the room.

The cards form a loop, so students will have to determine which is the starting card, in order to decipher the final task.

You could extend the activity by asking students to correct the cards which are false.

Answers

The starting card is 6. The message is 'Find half of a sixth'.

6 F	9 	13 N	4 D	3 H	11 A	10 L	16 F	
5 O	8 F		14 A	12 S	1 I	7 X	2 T	15 H