



Equations Maze

Teacher Notes

Content: Solving Equations involving Fractions

Possible uses:

- As a consolidation task for pairs of students
- As an extension task for more able students
- As a task to identify misconceptions

Pairs of students can work together to find the route through the maze, you may want to add an element of competition between pairs. After the task allow the students time to consider how they tackled it and have some whole class/group feedback to consider where they experienced problems and how they resolved them.

Resource options:

- Student task sheet
- Worksheet for pairs of pupils to use in collaboration
- As above and in completion with other pairs to see who can find the route most efficiently

Answers

In all the equations on the route **x=9**, the final move may cause some controversy, x=9 is a solution but one of two possible solutions. The red sections are the ones most likely to highlight misconceptions and problems.

			$\frac{5x}{3} + \frac{7x}{2} = 9x + 12$ $x=9$	$\frac{18}{x-7} = 9$ $x=9$	$\frac{3x-4+2x}{5} = \frac{6x-1}{5}$ $x=9$
	$\frac{x}{2} + \frac{7}{4} = \frac{25}{4}$ $x=9$	$\frac{3x}{4} + \frac{2x}{3} = \frac{5x+6}{4}$ $x=9$	$\frac{x}{3} + 7 = 10$ $x=9$		
$\frac{3x-x+1}{2} = \frac{x+7}{3} - 6$ $x=9$	$\frac{11}{x} + \frac{14}{2x} = 2$ $x=9$				