Solve $\dfrac{3x+1}{2} - \dfrac{x}{3} = 1$

1) 2 and 3 have a least common multiple of 6, so multiply both sides by 6 to clear the fractions.

1a) setup the multiplication: $6\left(\dfrac{3x+1}{2} - \dfrac{x}{3}\right) = 6 \cdot 1$

1b) distribute the 6: $6\dfrac{(3x+1)}{2} - \dfrac{6 \cdot x}{3} = 6$

1c) Simplify the left side: $3(3x+1) - 2x = 6$

$\dfrac{6}{2} = 3$ and $\dfrac{6}{3} = 2$

2) Distrbute the 3 into the parenthesis: $9x+3-2x=6$

3) Add like terms: $7x+3=6$

4) Subtract 3 from both sides and divide by 7: $x = \dfrac{6-3}{7} = \dfrac{3}{7}$

5) So $x=\dfrac{3}{7}$