

Solve the following equations in your notebooks.

1. a)  $\frac{3x}{4} = \frac{x}{3} + \frac{5}{6}$

b)  $\frac{x}{2} + \frac{2x}{3} = \frac{7}{2}$

c)  $\frac{x}{5} + \frac{2}{5} = \frac{5x}{6} - \frac{3}{2}$

d)  $\frac{x}{2} - \frac{1}{4} = \frac{x}{4} + \frac{3}{2}$

e)  $\frac{1}{2}x - \frac{3}{4} = \frac{2}{3} - \frac{7}{6}x$

f)  $\frac{1}{3}x + \frac{1}{4} = \frac{1}{5}x + \frac{1}{6}$

2. a)  $\frac{3x+5}{4} + 1 = 12$

b)  $\frac{x-1}{3} + 5 = 16$

c)  $\frac{7x-2}{10} + 1 = 5$

d)  $\frac{x-7}{8} + 1 = \frac{2x+3}{8} - 4$

e)  $\frac{3}{5} - \frac{x-4}{5} = 11 - 5x$

f)  $\frac{3x+5}{7} - \frac{2x+8}{7} = 5 - \frac{4}{7}$

3. a)  $\frac{3x}{5} - 2 = \frac{x}{10} + \frac{3}{2}$

b)  $\frac{3x-1}{5} + 1 = \frac{2x}{3} - 3$

c)  $\frac{x-1}{2} - \frac{x-2}{3} = \frac{x-3}{4}$

d)  $\frac{x}{2} + \frac{x}{3} + \frac{x}{5} - \frac{x}{6} = \frac{78}{30}$

e)  $\frac{2x-3}{4} + \frac{3x-7}{8} = 1$

f)  $\frac{x-10}{5} - \frac{12-x}{10} = \frac{x-2}{10}$

4. a)  $\frac{x+11}{15} - \frac{4-x}{9} = \frac{5x-89}{12} - 4$

b)  $4 - \frac{5x-12}{3} = x + \frac{x-3}{5}$

c)  $\frac{x-3}{12} - \frac{x+1}{6} = \frac{1}{3} - \frac{x-6}{2}$

d)  $\frac{x-1}{4} - \frac{2-3x}{3} = \frac{2x-3}{6} - \frac{x+5}{2}$

e)  $x - \frac{3x-2}{5} = 3 - \frac{2x-5}{3}$

f)  $\frac{4x-5}{3} - \frac{12-3x}{6} = \frac{x-10}{2}$

g)  $\frac{4x-8}{10} - \frac{20-x}{4} - 6 = \frac{1}{6} - \frac{2x+1}{6}$

h)  $\frac{x-4}{6} + \frac{x-6}{4} = 2 - \frac{x-10}{8}$

**Answers:**

1. a) 2      b) 3      c) 3      d) 7      e)  $\frac{17}{20}$       f)  $-\frac{5}{8}$   
 2. a) 13      b) 34      c) 6      d) 30      e) 2      f) 34  
 3. a) 7      b) 57      c) 11      d) 3      e) 3      f) 15  
 4. a) 49      b) 3      c) 9      d)  $-\frac{25}{17}$       e) 4      f) -1      g) 12      h) 10