

2.8 HOMEWORK HANDOUT: EQUATIONS WITH FRACTIONS

PART A

1. Solve.

a) $\frac{a}{10} - \frac{3a}{20} = \frac{5}{4} - \frac{3a}{10}$

b) $\frac{d}{30} + \frac{d}{20} = \frac{-1}{12}$

c) $\frac{3}{4} = \frac{y}{2} + \frac{1}{3}$

d) $\frac{x}{7} = \frac{1}{2} + \frac{2}{21}$

2. Solve.

a) $\frac{3m}{5} + \frac{2}{3} = \frac{8}{3}$

b) $\frac{2t}{3} - 3t + 21 = 0$

c) $1 + \frac{t}{2} = \frac{2t}{3} + \frac{3t}{4}$

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

3. Solve.

a) $\frac{7}{4}x - 3 = 2 + \frac{9}{2}x$

b) $\frac{1}{3} - \frac{2}{9}m = 15 + m$

c) $\frac{1}{6}r + 2 = 4\frac{1}{9}r + \frac{8}{3}$

d) $\frac{2}{3} - \frac{3}{2}y + \frac{1}{3}y + 4 = 0$

PART B

4. Solve.

a) $\frac{2x+6}{4} + \frac{x+1}{3} = \frac{7}{2}$

b) $\frac{p+3}{3} - \frac{p}{4} = \frac{p-2}{5}$

c) $\frac{2q-1}{6} + \frac{q-1}{4} = \frac{17}{4}$

d) $\frac{5t-3}{4} = \frac{t}{2}$

5. Solve.

a) $\frac{3y-1}{5} - 1 = \frac{2y-4}{3}$

b) $\frac{n+1}{2} + \frac{2n+1}{3} = 9$

c) $\frac{p}{2} + \frac{p+1}{2} = \frac{p+2}{2}$

d) $\frac{3c+8}{3} = \frac{1}{2} + \frac{c}{4}$

6. Solve.

a) $\frac{1}{2}(q+1) = \frac{4}{3} - q$

b) $3\left(a - \frac{2}{3}\right) = \frac{3}{4}a + 2\frac{1}{4}$

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

d) $\frac{3}{2}(2x-3) + 2 = \frac{-2(5-x)}{5}$

ANSWERS

1) a) $a=5$ b) $d=-1$ c) $y=\frac{5}{6}$ d) $x=\frac{25}{6}$ 2) a) $m=\frac{10}{3}$ b) $t=9$ c) $t=\frac{12}{11}$

d) $z=\frac{23}{35}$ 3) a) $x=\frac{-20}{11}$ b) $m=-12$ c) $r=\frac{-12}{71}$ d) $y=4$

4) a) $x=2$ b) $p=12$ c) $q=8$ d) $t=1$ 5) a) $y=2$ b) $n=7$ c) $p=1$

d) $c=\frac{-26}{9}$ 6) a) $\frac{5}{9}$ b) $\frac{17}{9}$ c) 44 d) $\frac{5}{26}$