Name: _____

Equations and Inequalities with Rational Numbers

Solve the equation by first clearing the fractions.

1) $\dfrac{2}{3}n + 17 = \dfrac{5}{6}$

2) $\dfrac{2}{5} = \dfrac{5}{8}n - 4$

3) $\dfrac{2}{3}n - \dfrac{1}{2} = \dfrac{7}{4}$

4) $\dfrac{1}{2}t + \dfrac{1}{4} = \dfrac{5}{16}$

5) $\dfrac{5}{6}s + \dfrac{2}{9} = -\dfrac{7}{12}$

6) $\dfrac{3}{4} = \dfrac{5}{6}a + \dfrac{2}{9}$

7) $-\dfrac{41}{60} + \dfrac{17}{20}p = \dfrac{29}{30}$

8) $\dfrac{3}{8} = -\dfrac{1}{4}x - \dfrac{3}{5}$

9) $\dfrac{5}{8} = \dfrac{1}{10} + \dfrac{5}{14}m$

10) $-\dfrac{3}{2}t - \dfrac{5}{6} = -\dfrac{4}{9}$

11) $-\dfrac{3}{5}z - 4 = -\dfrac{77}{20}$

12) $4w + \dfrac{2}{7} = -\dfrac{4}{5}$

Solve the equation by first clearing the decimals.

13) $2.3m - 11 = ^-29.4$

14) $5.3m - 6 = ^-27.2$

15) $^-1.2m + 1.25 = 0.77$

16) $6.2x - 3.7 = 22.3$

17) $7.8y + 6 = 23.16$

18) $10.7w + 4 = 47.87$

19) $2 = ^-6.4z + 10$

20) $^-3.3x + 6.5 = 1.55$

21) $1.6b - 3 = ^-9.4$

22) $^-1.7w - 4 = 2.63$

23) $2.875y + 9 = 12.45$

24) $4.125c + 5 = ^-9.85$

25) You want to save $400 for a camping trip. You have $64.96 in your savings account. Each week you deposit your pay check from your part-time job. Each pay check is for $69.80. How many pay checks must you deposit to reach your goal of $400?