Assign #3

New

Book: Pg 31. #11, 13, 15, 19, 21, 23, 33, 35, 37, 41, 43, 47

solve:

11. $-2(a+4)=2$

$-2a-8=2$

$+8 \quad +8$

$\frac{-2a}{-2} = \frac{10}{-2}$

$\boxed{a=-5}$

13. $7+5n=-58$

$-7 \quad -7$

$\frac{5n}{5} = \frac{-65}{5}$

$\boxed{n=-13}$

15. $-\frac{2}{3}k = 14$

$\div -\frac{2}{3} \quad \div -\frac{2}{3}$

$\boxed{k=-21}$

$k = \frac{14}{1} \cdot \frac{-3}{2} = -21$

19. fourteen decreased by the square of a number

$\boxed{14-x^2}$

21. four times the sum of a number and its square

$4(x+x^2)$

23. the sum of 7 and three times a number

$\boxed{7+3x}$

33, 35, 37, 41, 43, 47

33. $34 - 10w = 6w + 2$

$-2 \quad +10w \quad +10w \quad -2$

$\frac{32}{16} = \frac{16w}{16}$

$\boxed{w = 2}$

35. $\frac{1}{8} - \frac{3}{4}x = \frac{1}{16}$

$-\frac{1}{8} \qquad -\frac{1}{8}$

$-\frac{3}{4}x = \frac{1}{16} - \frac{2}{16}$

$\frac{-\frac{3}{4}x}{-\frac{3}{4}} = \frac{-\frac{1}{16}}{-\frac{3}{4}}$

$x = \frac{-1}{16} \cdot \frac{-4}{3}$

$\boxed{x = \frac{1}{12}}$

37. $5 = -5(y+3)$

$5 = -5y - 15$

$+15 \qquad +15$

$\frac{20}{-5} = \frac{-5y}{-5}$

$\boxed{y = -4}$

41. $4m - 9 = 5m + 7$

$-4m \quad -7 \quad -4m \quad -7$

$\boxed{-16 = m}$

Assign #3 cont

43. $12x - 24 = -14x + 28$

$+14x \quad +24 \qquad +14x \quad +24$

$\frac{26x}{26} = \frac{52}{26}$

$\boxed{x = 2}$

47. $\frac{5}{7}x - 4 = \frac{2}{7}x + 1$

$-\frac{3}{7}x \quad +4 \qquad -\frac{3}{7}x \quad +4$

$\frac{\frac{2}{7}x}{\frac{2}{7}} = \frac{5}{\frac{2}{7}}$

$x = 5 \cdot \frac{7}{2}$

$\boxed{x = \frac{35}{2}}$

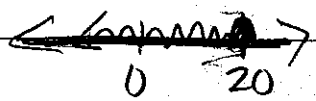
Book: Pg 47 # 9, 13, 15, 21, 27, 29, 35, 39

Solve & graph

9. $\frac{d}{10} - 2 \leq 0$

$+2 \quad +2$

$10\left(\frac{d}{10}\right) \leq (2)10$

$\boxed{d \leq 20}$ 


13. A number plus 15 is greater than or equal to 27.

$x + 15 \geq 27$

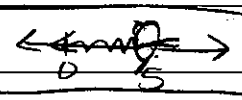
$-15 \quad -15$

$\boxed{x \geq 12}$ 

15, 21, 27, 29, 35, 39

15. $\frac{-5r}{-5} > \frac{25}{-5}$

$r < 5$

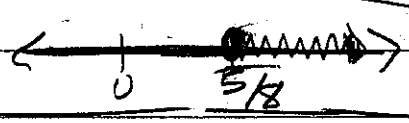



21. $8x + 5 \geq 10$

$-5 \quad -5$

$\frac{8x}{8} \geq \frac{5}{8}$

$x \geq \frac{5}{8}$




27. $2(m-5) - 3(2m-5) < 5m+1$

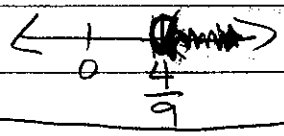
$2m - 10 - 6m + 15 < 5m + 1$

$-4m + 5 < 5m + 1$

$+4m \quad -1 \quad +4m \quad -1$

$\frac{4}{9} < \frac{9m}{9}$

$m > \frac{4}{9}$




29. $3b - 2(b-5) < 2(b+4)$

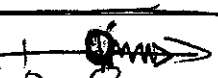
$3b - 2b + 10 < 2b + 8$

$b + 10 < 2b + 8$

$-b \quad -8 \quad -b \quad -8$

$2 < b$

$b > 2$



Assign #3 cont.

35. $7(-x) \geq \left(\frac{x+4}{7}\right)7$

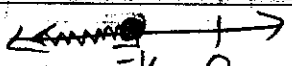
$-7x \geq x + 4$

$-x \quad -x$

$-8x \geq 4$

$\frac{-8x}{-8} \geq \frac{4}{-8}$

$x \leq -\frac{1}{2}$




39. three fourths of a number decreased by 25 is at least 8.

$\frac{3}{4}x - 25 \geq 8$

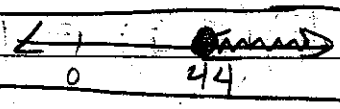
$+25 \quad +25$

$\frac{3}{4}x \geq 33$

$\frac{3}{4} \quad \frac{3}{4}$

$x \geq \frac{33}{1} \cdot \frac{4}{3}$

$x \geq 44$




Review

1. $12.1 - 0.101 = 11.999$

$12.100$
$-0.101$
$11.999$

2. $-0.007 + 0.06 = \boxed{0.053}$

$$\begin{array}{r} 0.0\overset{5}{\cancel{6}}0 \\ -0.007 \\ \hline .053 \end{array}$$

3. $(-5.34)(3.2) = \boxed{-17.088}$

$$\begin{array}{r} 5.34 \\ \times\ 3.2 \\ \hline 1068 \\ +16020 \\ \hline 17088 \end{array}$$

4. $2.92 \div 4 = \boxed{.73}$

$$\begin{array}{r} .73 \\ 4\overline{)2.92} \\ -28 \\ \hline 12 \\ -12 \\ \hline 0 \end{array}$$

5. $(1\frac{7}{9})(5\frac{3}{4}) = (\frac{\overset{4}{16}}{9})(\frac{23}{\underset{1}{4}}) = \boxed{\frac{92}{9}}$

6. $(\frac{-\overset{2}{6}}{\underset{1}{1}})(\frac{5}{\underset{3}{6}})(\frac{9}{10}) = (\frac{-10}{1})(\frac{9}{\underset{1}{10}}) = \boxed{-9}$

7. $-\frac{7}{\underset{2}{12}} \div \frac{1}{18} = -\frac{7}{\underset{2}{12}} \cdot \frac{\overset{3}{18}}{1} = \boxed{\frac{-21}{2}}$

8. $2\frac{4}{7} \div 1\frac{1}{2} = \frac{18}{7} \div \frac{3}{2} = \frac{\cancel{18}^{6}}{7} \cdot \frac{2}{\cancel{3}_{1}} = \boxed{\frac{12}{7}}$

9. $-\frac{3}{5} + \frac{5}{6} = -\frac{18}{30} + \frac{25}{30} = \boxed{\frac{7}{30}}$

10. $-\frac{7}{15} - \frac{5}{12} = -\frac{28}{60} - \frac{25}{60} = \boxed{-\frac{53}{60}}$

11. $\frac{7}{3} - \frac{5}{6} - \frac{2}{3} = \frac{14}{6} - \frac{5}{6} - \frac{4}{6} = \frac{9}{6} - \frac{4}{6} = \boxed{\frac{5}{6}}$

Book pg 10: #20, 22, 30, 54

20. $(7+5)3 - 3$
$= (12)3 - 3$
$= 36 - 3$
$= \boxed{33}$

22. $10 + 16 \div 4 + 8$
$= 10 + 4 + 8$
$= 14 + 8$
$= \boxed{22}$

30. $-3(2^2 + 3)$
$= -3(4+3)$
$= -3(7)$
$= \boxed{-21}$

54. Insert grouping symbols as needed to make each statement true.

a.) $(1+3)\cdot 2^2 = 16$

b.) $\boxed{1+(3\cdot 2)^2} = 49$

c.) $1+3\cdot 2^2 = 13$

d.) $1+(3\cdot 2)^2 = 37$

pg(17) Book pg 16: # 20-26 evens, 52, 54

20. $2.9+3.7 = \boxed{6.6;\ \mathbb{R}, \mathbb{Q}}$

$$\begin{array}{r} 2.9 \\ +3.7 \\ \hline 6.6 \end{array}$$

22. $58\div 100 = \boxed{.58;\ \mathbb{R}, \mathbb{Q}}$

24. $1-5 = \boxed{-4;\ \mathbb{R}, \mathbb{Q}, \mathbb{Z}}$

26. $3^3+2^2 = 27+4 = \boxed{31;\ \mathbb{R}, \mathbb{Q}, \mathbb{Z}, \mathbb{W}, \mathbb{N}}$

52. $6x-2y-3x+2y = \boxed{3x}$

54. $\frac{1}{2}(17-4x)-\frac{3}{4}(\frac{4}{1}-\frac{16}{1}x)$

$= \frac{17}{2}-2x-\frac{9}{2}+12x = 10x+\frac{8}{2} = \boxed{10x+4}$