Unit 4 Review

1) $(-6)+5 = \boxed{-1}$

2) $3(-7)+4 = -21+4$
$= \boxed{-17}$

3) $4x-3x+x$
$= x+x = \boxed{2x}$

4) $2x+5y-3x$
$= \boxed{-x+5y}$

5) $15k-5j+2k+j$
$= \boxed{17k-4j}$

6) $\boxed{5x^2-3x+2}$

7) $2x^2y-5xy+5xy^2+3xy$
$= \boxed{2x^2y-2xy-5xy^2}$

8) $3(x+2) = \boxed{6x+6}$

9) $5(x-7) = \boxed{5x-35}$

10) $-2(x-4) = \boxed{-2x+8}$

11) $-2(3x+6) = \boxed{-6x-12}$

12) $2+3(x-4) = 2+3x-12$
$= \boxed{3x-10}$

13) $5x-2x+8 = \boxed{3x+8}$

14) $x+7=-13$
$-7 \quad -7$
$\boxed{x=-20}$

15) $x-4=-22$
$+4 \quad +4$
$\boxed{x=-18}$

16) $-4 = x+22$
$-22 \quad -22$
$\boxed{-26=x}$

17) $\frac{4x}{4} = \frac{24}{4}$
$\boxed{x=6}$

18) $\frac{-11x}{-11} = \frac{55}{-11}$
$\boxed{x=-5}$

19) $\frac{-7x}{-7} = \frac{-49}{-7}$
$\boxed{x=7}$

20) $3x+7x = 15-(-5)$
$10x = 15+5$
$\frac{10x}{10} = \frac{20}{10}$
$\boxed{x=2}$

21) $2x+5-x=14$
$x+5=14$
$-5 \quad -5$
$\boxed{x=9}$

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22) $x + 5 = 20$

$-5 \quad -5$

$\boxed{x = 15}$

23) $\frac{x \cdot 7}{7} = \frac{28}{7}$

$\boxed{x = 4}$

24) $2x - 7 = 9$

$+7 \quad +7$

$\frac{2x}{2} = \frac{16}{2}$

$\boxed{x = 8}$

25) $4 - 3x = 31$

$-4 \quad -4$

$\frac{-3x}{-3} = \frac{27}{-3}$

$\boxed{x = -9}$

26) $3(x-1) + 2 = 5$

$3x - 3 + 2 = 5$

$3x - 1 = 5$

$+1 \quad +1$

$\frac{3x}{3} = \frac{6}{3}$

$\boxed{x = 2}$

~~25)~~

27) $4 - 2(x+1) = 7 - (-3)$

$4 - 2x - 2 = 7 + 3$

$2 - 2x = 10$

$-2 \quad -2$

$\frac{-2x}{-2} = \frac{8}{-2}$

$\boxed{x = -4}$

28) $4x - 5 = 2x + 17$

$+5 \quad +5$

$4x = 2x + 22$

$-2x \quad -2x$

$\frac{2x}{2} = \frac{22}{2}$

$\boxed{x = 11}$

29) $3x - 5 = 2(x+7) - 3$

$3x - 5 = 2x + 14 - 3$

$3x - 5 = 2x - 11$

$+5 \quad +5$

$3x = 2x - 6$

$-2x \quad -2x$

$\boxed{x = -6}$

30) $\frac{2}{7}x = \frac{5}{7}$ LCM 7

$\frac{7}{1} \cdot \frac{2}{7}x = \frac{7}{1} \cdot \frac{5}{7}$

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

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

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31) $x - \frac{7}{3} = \frac{2}{3}$ LCM 3

$3x - 7 = 2$

$+7 \quad +7$

$\frac{3x}{3} = \frac{9}{3}$

$\boxed{x = 3}$

32) $\frac{4}{5}x - \frac{1}{3} = \frac{1}{6}$ LCM 30

$\frac{30}{1} \cdot \frac{4}{5}x - \frac{30}{1} \cdot \frac{1}{3} = \frac{30}{1} \cdot \frac{1}{6}$

$6.4x - 10 = 5$

$24x - 10 = 5$

$+10 \quad +10$

$\frac{24x}{24} = \frac{15}{24}$

$x = \frac{15}{24} \rightarrow \boxed{x = \frac{5}{8}}$

33) $\frac{1}{2}x - \frac{2}{3} = \frac{5}{2}x - \frac{1}{3}$ LCM 6

$\frac{6}{1} \cdot \frac{1}{2}x - \frac{6}{1} \cdot \frac{2}{3} = \frac{6}{1} \cdot \frac{5}{2}x - \frac{6}{1} \cdot \frac{1}{3}$

$3x - 4 = 15x + 2$

$+4 \quad +4$

$3x = 15x + 2$

$-15x \quad -15x$

$\frac{-12x}{-12} = \frac{2}{-12}$

$\boxed{x = -\frac{1}{6}}$

34) $0.4x = 0.64$

$10(0.4x) = 10(0.64)$

$\frac{4x}{4} = \frac{6.4}{4}$

$\boxed{x = 1.6}$

35) $x - 2.5 = 3.65$

$+2.5 \quad +2.5$

$\boxed{x = 6.15}$

36) $0.25x + 4.1 = -2.55$ same sign neg.

$-4.1 \quad -4.1$

$\frac{0.25x}{0.25} = \frac{-6.65}{0.25}$

$\boxed{x = -26.6}$

$25 \overline{)665.0}$

26.6

50

165

150

150