Key

Simplify the following by removing the parentheses, brackets, and braces as necessary: (3 pts. each)

1) $-(8a) =$ $\boxed{-8a}$

2) $-(x+z) =$ $\boxed{-x+z}$

3) $-(-9a-7b+24) =$ $\boxed{9a-7b+24}$

4) $-(n+11) =$ $\boxed{-n-11}$

5) $(2x+y)-6 =$ $\boxed{2x+y-6}$

6) $-\{7-[9-(7+8)]\} =$ $\boxed{-13}$

7) $3(4x+5)-[(12x+10)+5] =$ $\boxed{0}$

8) $[5(x+2)-3x] =$ $\boxed{2x+10}$

9) $\{4[3(y-2)-4(y+2)]-3\} =$ $\boxed{-4y-59}$

10) $[5(x+2)-3x]-\{4[3(y-2)-4(y+2)]-3\} =$ $\boxed{2x+4y+69}$

Key

Fill in the blanks:
(3 pts. per question)

11) 62.4 is ***20*** % of 312.

12) 108 is ***27*** % of 400.

13) 37 is to 111, as, 17 is to ***51***.

14) 535.5 is to 714, as, 75 is to ***100***.

15) 1 inch is equal to ***0.0833*** feet, which is the decimal equivalent of 1 inch.

Word problem 1: (5 pts.)

16) A blueprint of a shopping mall is in the scale of 1" = 80'. One part of the mall is to be 220 feet long. How long will this be on the blueprint in inches?

$$1/80 = x/220$$

x = ***2.75 inches***

Key

Perform each of the indicated operations:
(5 pts. each)

17) $\left(\frac{2}{3}\right)(3/8) =$ $\boxed{\frac{1}{4}} = \boxed{0.2500}$

18) $\left(\frac{7}{10}\right) + \left(\frac{13}{-5}\right) =$ $\boxed{-\frac{3}{5}} = \boxed{-0.6000}$

19) $t^4 \cdot t^3 \cdot t^3 =$ $\boxed{t^{10}}$

20) $r^6 \div r^{13} =$ $\boxed{r^{-7}} = \boxed{\frac{1}{r^7}}$

21) $\left(-x^6\right)^2 =$ $\boxed{+x^{12}}$

22) $\left(y^3\right)\left(1/y^3\right) =$ $\boxed{1}$

23) $2x[4+3(-x-y)] =$ $\boxed{-6x^2+8x-6xy}$

24) $4(4x+3)+\{-2[2(3x+3)]-4\} =$ $\boxed{4x-4}$