

Name \_\_\_\_\_ Date \_\_\_\_\_ Pd \_\_\_\_\_

## Chapter 5 Extra Review

### Multi-Step Equations and Inequalities

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**Simplify each expression. (Use the Distributive Property and collect like terms.)**

1)  $5(8g + 10)$

2)  $-3(7m + 4)$

3)  $9(10f - 7)$

4)  $-(7a - 1)$

5)  $-4(-3k + 6) + (-12)$

6)  $6(4n - 2) - 5$

7)  $6c + 3(2c - 4) + 8$

8)  $2(-2p + 1) - 5p - 4$

9)  $5 + 3(-3 - 4y) - 7y + 4$

10)  $-8(-7w - 2) + 6(5 + w)$

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**Solve each equation. Show your work ☺ Check your solution if necessary.**

11)  $6k + 14 = 4k - 4$

12)  $-14 = -3(2p + 4)$

13)  $5y - 1 = 3(y + 2) + 3$

14)  $1 + 5(b + 3) = 8(b + 2)$

**OVER** 

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Solve each equation. Show your work ☺ Check your solution if necessary.

15)  $6f - 4 = 2(f + 8)$

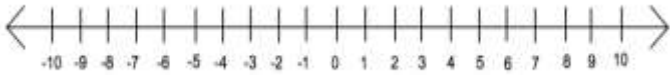
16)  $6 - 2c + 3 = 7 + c$

Solve. Show your work ☺ Check your solution if necessary.

Then, graph the solution on a number line.

17)  $6w - 2 \geq -20$

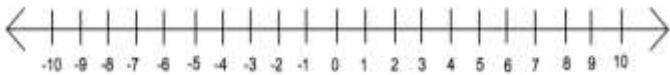
18)  $3 - 3k \leq -12$



19)  $\frac{m}{2} - 6 < -5$



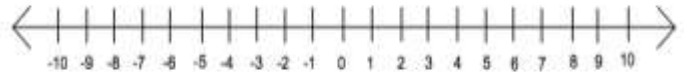
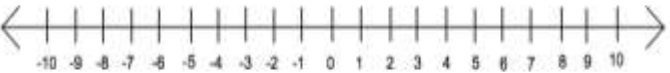
20)  $4h - 4 \leq 1 - h$



21)  $-3(n + 2) > -18$



22)  $\frac{1}{3}(12 + 6b) > 8$



**FINALLY DONE**



# Chapter 5 Extra Review **Answer Key**

## Multi-Step Equations and Inequalities

**Simplify each expression. (Use the Distributive Property and collect like terms.)**

1)  $5(8g + 10)$

$40g + 50$

2)  $-3(7m + 4)$

$-21m - 12$

3)  $9(10f - 7)$

$90f - 63$

4)  $-(7a - 1)$

$-7a + 1$

5)  $-4(-3k + 6) + (-12)$

$12k - 24 + (-12)$

$12k - 36$

6)  $6(4n - 2) - 5$

$24n - 12 - 5$

$24n - 17$

7)  $6c + 3(2c - 4) + 8$

$6c + 6c - 12 + 8$

$12c - 4$

8)  $2(-2p + 1) - 5p - 4$

$-4p + 2 - 5p - 4$

$-9p - 2$

9)  $5 + 3(-3 - 4y) - 7y + 4$

$5 - 9 - 12y - 7y + 4$

$-19y$

10)  $-8(-7w - 2) + 6(5 + w)$

$56w + 16 + 30 + 6w$

$62w + 46$

**Solve each equation. Show your work ☺ Check your solution if necessary.**

11)  $6k + 14 = 4k - 4$

$\frac{-4k}{-4k} \quad \frac{-4k}{-4k}$

$2k + 14 = -4$

$\frac{-14}{-14} \quad \frac{-14}{-14}$

$\frac{2k}{2} = \frac{-18}{2}$

$k = -9$

12)  $-14 = -3(2p + 4)$

$-14 = -6p - 12$

$\frac{+12}{+12} \quad \frac{+12}{+12}$

$\frac{-2}{-6} = \frac{-6p}{-6}$

$\frac{1}{3} = p$

13)  $5y - 1 = 3(y + 2) + 3$

$5y - 1 = 3y + 6 + 3$

$5y - 1 = 3y + 9$

$\frac{-3y}{-3y} \quad \frac{-3y}{-3y}$

$2y - 1 = 9$

$\frac{+1}{+1} \quad \frac{+1}{+1}$

$\frac{2y}{2} = \frac{10}{2}$

$y = 5$

14)  $1 + 5(b + 3) = 8(b + 2)$

$1 + 5b + 15 = 8b + 16$

$5b + 16 = 8b + 16$

$\frac{-5b}{-5b} \quad \frac{-5b}{-5b}$

$16 = 3b + 16$

$\frac{-16}{-16} \quad \frac{-16}{-16}$

$\frac{0}{3} = \frac{3b}{3}$

$0 = b$

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Solve each equation. Show your work ☺ Check your solution if necessary.

$$\begin{aligned}
 15) \quad 6f - 4 &= 2(f + 8) \\
 6f - 4 &= 2f + 16 \\
 \underline{-2f \quad -2f} & \\
 4f - 4 &= 16 \\
 \underline{\quad +4 \quad +4} & \\
 \frac{4f}{4} &= \frac{20}{4} \\
 f &= 5
 \end{aligned}$$

$$\begin{aligned}
 16) \quad 6 - 2c + 3 &= 7 + c \\
 \underline{\quad -c \quad -c} & \\
 -3c + 9 &= 7 \\
 \underline{\quad -9 \quad -9} & \\
 \frac{-3c}{-3} &= \frac{-2}{-3} \\
 c &= \frac{2}{3}
 \end{aligned}$$

Solve. Show your work ☺ Check your solution if necessary.

Then, graph the solution on a number line.

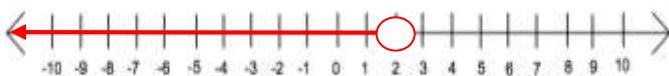
$$\begin{aligned}
 17) \quad 6w - 2 &\geq -20 \\
 \underline{\quad +2 \quad +2} & \\
 \frac{6w}{6} &\geq \frac{-18}{6} \\
 w &\leq -3
 \end{aligned}$$

$$\begin{aligned}
 18) \quad 3 - 3k &\leq -12 \\
 \underline{\quad -3 \quad -3} & \\
 \frac{-3k}{-3} &\leq \frac{-15}{-3} \\
 k &\geq 5
 \end{aligned}$$



$$\begin{aligned}
 19) \quad \frac{m}{2} - 6 &< -5 \\
 \underline{\quad +6 \quad +6} & \\
 (2) \frac{m}{2} &< 1(2) \\
 m &< 2
 \end{aligned}$$

$$\begin{aligned}
 20) \quad 4h - 4 &\leq 1 - h \\
 \underline{\quad +h \quad +h} & \\
 5h - 4 &\leq 1 \\
 \underline{\quad +4 \quad +4} & \\
 \frac{5h}{5} &\leq \frac{5}{5} \\
 h &\leq 1
 \end{aligned}$$



$$\begin{aligned}
 21) \quad -3(n + 2) &> -18 \\
 -3n - 6 &> -18 \\
 \underline{\quad +6 \quad +6} & \\
 \frac{-3n}{-3} &> \frac{-12}{-3} \\
 n &< 4
 \end{aligned}$$

$$\begin{aligned}
 22) \quad \frac{1}{3}(12 + 6b) &> 8 \\
 4 + 2b &> 8 \\
 \underline{\quad -4 \quad -4} & \\
 \frac{2b}{2} &> \frac{4}{2} \\
 b &> 2
 \end{aligned}$$



FINALLY DONE

