

## Chapter 5 Practice Test

Date \_\_\_\_\_ Period \_\_\_\_\_

**Simplify each expression.**

1)  $(2 + 6m) + (5m - 3)$

2)  $(8 - 5x) - (3x - 6)$

3)  $(4 + 2p) + (5 - 6p)$

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

5)  $3(5r - 1) + 3(-5 - 2r)$

6)  $-4(1 + 3x) - 4(2x - 5)$

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

8)  $3(2 + 4n) - 2(n - 4)$

9)  $5(-3 - 5p) - 3(p - 3)$

10)  $4(4x - 1) - (-2 - 4x)$

**Factor the common factor out of each expression.**

11)  $-48k^2 + 56k$

12)  $32 - 20x^2$

13)  $5 - 35k^2$

14)  $2 - 5a$

15)  $4m^2 - 3m$

16)  $-2 + 14k$

**For each arithmetic sequence below, write an expression in simplified form to find the  $n$ th term.**

17) 12, 16, 20, 24, 28, ...

18) 19, 13, 7, 1, -5

19) -2, 7, 16, 25, 34, ...

20) -3, -6, -9, -12, -15, ...

**For each expression below, write the first five terms of the arithmetic sequence it describes.**

21)  $6n - 5$

22)  $-2n - 7$

23)  $\frac{1}{2}n + \frac{3}{2}$

24)  $0.8n - 1.4$

**For each scenario below, write an expression to describe the scenario.**

25) You are opening a lemonade stand and spend \$60 on materials for the stand. You will sell lemonades for 75¢ each. How much money (in dollars) will you earn in profit if you sell  $c$  cups of lemonade?

26) A plumber charges \$50 per visit, plus an additional \$25 per hour of work. How much will the plumber charge in total if the job requires  $h$  hours to complete?

27) You borrow \$50 and plan to pay \$5 per week until the debt is paid off. How much will you still owe after  $w$  weeks?

28) You are saving up to buy a \$400 laptop computer. If you have \$65 in your savings account and earn \$20 per week walking dogs, how much money will you have saved after  $w$  weeks?