Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Core: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit 6 Mid Assessment Review/6

**NO CALCULATOR**

Determine the value using order of operation.

1. (5 • 7) – 32 + (52 – 14) 2. (42 – 10) ÷ 3 • 42

3. (2 + 6)2 + 81 – (6 + 23)0 + 23 4. (16 • 5) – 33 + 20 – 2

5. (32 + 2) • 2 + 4 • 6 6. (3 • 8 – 4) ÷ 5 • 2 + 140

7. (22 + 52) + 60 ÷ 15 • 2 8. 3 • 2 • 5 ÷ 6 + 12 – 8 + 13

9. (6 • 7) + 43 – 50 10. (102 – 60) ÷ 8 • 22

11. (4 • 10) + 13 – 7 + 14 12. 30 ÷ 6 • 5 + 50 – 23 + 7

13. (2 + 7)2 + 45 – 18 + 9 14. 8 • 2 ÷ 4 + 3 • 4 – 2 + 5

Evaluate each expression for the value given.

14. 8(y2) – 6x – 20 Evaluate when y = 3 and x = 2: \_\_\_\_\_\_\_\_

15. (x + 2)2 + p + x(4 + p) Evaluate when x = 4 and p = 10: \_\_\_\_\_\_\_\_

16. 5k + 24.89  Evaluate when k = 4.6: \_\_\_\_\_\_\_\_

17. 3(a + b) + b3  Evaluate when a = 4 and b = 2: \_\_\_\_\_\_\_\_

18. 15m + 3.2 + 14.81 Evaluate when m = 2.3: \_\_\_\_\_\_\_\_

19. (b + 10)2 + c – 80 Evaluate when b = 2 and c = 15: \_\_\_\_\_\_\_\_\_\_\_\_

20. 5(x3) – 3x + 200 Evaluate when x = 2: \_\_\_\_\_\_\_\_\_\_\_\_

21. (x + p)2 + 5p – 10 Evaluate when x = 4 and p = 3: \_\_\_\_\_\_\_\_\_\_\_\_

22. 26m + 62.7 Evaluate when m = 1.6: \_\_\_\_\_\_\_\_\_\_\_\_

23. (x2) • 5 + xy – 2 Evaluate when x = 3 and y = 4: \_\_\_\_\_\_\_\_\_\_\_\_

24. 5(p2) ÷ 20 • 2 + 6 + 9 Evaluate when p = 4: \_\_\_\_\_\_\_\_\_\_\_\_

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Core: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit 6 Mid Assessment Review/6

**CALCULATOR**

1. John has 20.5 feet of wire. He cut off a certain amount and gave it to his friend leaving him with 13.75 feet of wire. Create an equation that represents this situation where k represents the amount of wire that John gave to his friend, then solve.

Equation = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Solution = \_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Elora has been saving her money for the last 6 months. She now has $85. On her birthday she received ***b*** dollars and she now has $135. Circle the equations that could represent Elora’s situation.

A) C) E)

B) D) F)

3. Paul gets paid for mowing his neighbor’s yard. He gets paid $10.50 per hour (h). If he got paid $241.50 for the week how many hours did he mow that week? Circle the equations that could represent Paul’s situation.

A) C)

B) D)

3. Mark has $30. He spends $2.50 on candy and $1.19 on a drink. ***Write and solve an equation*** to show how much money Mark has left.

Equation = Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Jason spent $65.40 on 4 used video games. If each game costs the same amount, ***write an equation*** that represents this situation and ***solve*** to determine how much one game cost.

Equation = \_\_\_\_ Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5**.** Meg spent $49.80 on 4 blouses. If each blouse cost the same amount how much did 1 blouse cost?

Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6**.** Jim mowed 8 lawns and received $96. If Jim received the same amount of money for each lawn how much did he receive for 1 lawn?

Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Solution:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Mary received $50 for her birthday. If she spends $10.50 on dinner and $21.00 on renting video games how much does Mary have remaining from her birthday money?

Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Solution:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Solve each one-step equation and show all of your work before you use a calculator.

A) w + 14 = 23 \_\_\_\_\_\_\_\_\_\_\_\_\_ K) \_\_\_\_\_\_\_\_\_\_\_\_

B) 3k = 21 \_\_\_\_\_\_\_\_\_\_\_\_\_ L) \_\_\_\_\_\_\_\_\_\_\_\_

C) \_\_\_\_\_\_\_\_\_\_\_\_\_ M) \_\_\_\_\_\_\_\_\_\_\_

D) 3q + 2q = 18 + 12 \_\_\_\_\_\_\_\_\_\_\_\_\_ N) \_\_\_\_\_\_\_\_\_\_\_

E) v + 24.15 = 97.7 \_\_\_\_\_\_\_\_\_\_\_\_\_ O) \_\_\_\_\_\_\_\_\_\_\_\_

F) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ P) 10x – 2x + x = 6 • 6 \_\_\_\_\_\_\_

G) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Q) x – 17.2 = 23.9 \_\_\_\_\_\_\_\_\_

H) 7y – 5y = 30 – 14 \_\_\_\_\_\_\_\_\_\_\_\_ R) \_\_\_\_\_\_\_\_\_\_\_\_\_\_

I) 5w + 3w + w = 12 • 3 \_\_\_\_\_\_\_\_\_\_\_ S) 67 + z = 150 \_\_\_\_\_\_\_\_\_\_\_

J) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ T) \_\_\_\_\_\_\_\_\_\_\_\_\_

6. Simplify each problem.

A) 34 + 4f – 10 + 16f – f + 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B) 3d + 19c + 11 – d – 2c + 2 + 13d \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C) 82 + 12w – 6w + 20 + w – 3w + 50w \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

D) 13x + 10x – 5x – x + 2x + 7x \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

E) 2y + 18 + 19y – 4 + 20 – 6y + 15y \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

F) 2w + 52 + 12w – 12 + 13w – 3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

G) 7p + 13 + 20p – 2 – 3p + 16 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

H) 9w + 2w + 42 + 5w – 10w + 23 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Determine the perimeter of each.

5y + u + 20

A) B)

6j + 2

10u + 13

13 + 7y + 9u

8h + 2j + 8

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3 + 4j + 8u

C) D)

20j + 5u

1 + 10x + 3y

2y + 3x + 7

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

F) G)

3 + 10p

2w + 25q

5w + 15q

12p + 20

12w + q

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_