EXTRA PRACTICE — Exercises

Unit V – Second Degree Relations and higher - Polynomials
Part A – Exponent Notation
Lesson 1 – Definitions and Terminology

Write each of the following expressions in exponent notation.

1. $6 \cdot 6 \cdot 6 \cdot 6$

2. $x \cdot x \cdot x \cdot x \cdot y \cdot y$

3. $(^{-}2)(^{-}2)(^{-}2)(^{-}2)$

4. $(5^2)(5^2)(5^2)(5^2)$

5. $(^{-}3a)(^{-}3a)(^{-}3a)$

6. $9 \cdot x \cdot 9 \cdot x \cdot 9 \cdot x$

7. $4 \cdot 4 \cdot 4 \cdot 4 \cdot 4$

8. $7 \cdot 7 \cdot a \cdot a \cdot a \cdot b \cdot b \cdot b$

9. $1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1$

Evaluate each of the following expressions.

10. 6^3

11. $^{-}4^4$

12. $^{-}5^3$

13. $(^{-}6)^2$

14. $4^3 \cdot 2^3$

15. $(^{-}4)^4$

16. $3^2 \cdot 4^3$

17. $(^{-}2)^5 \cdot (^{-}3)^2$

18. $(^{-}1)^3 \cdot (4^2)$

19. $^{-}4^3$

Evaluate each of the following expressions.

20. $12 - 3 \cdot 2 + 10$

21. $62 \cdot 8 + 3^4 - 2(29 + 33 \cdot 4)$

22. $4 \div (8-10)^2 + 1$

23. $6^3 + 25 \cdot 71 - (16 + 25 \cdot 4)$

24. $4^3 - (5^2 - 64 \div 4)$

25. $\dfrac{5^3 - 3^2 + 12 \cdot 5}{^{-}32 \div (^{-}16) \div (^{-}4)}$

26. $5^3 + 20 \cdot 40 + 8^2 - 29$

27. $\dfrac{8 \cdot 7 - (6 - 8)}{5^2 + 6^3}$

28. $\dfrac{7(5 - 2 \cdot 3) - 3^2}{4^2 + 3^2}$

29. $5^4 - 38 \cdot 24 - (16 - 4 \cdot 18)$

EXTRA PRACTICE — Answer Key

Unit V – Second Degree Relations and higher - Polynomials
Part A – Exponent Notation
Lesson 1 – Definitions and Terminology

Write each of the following expressions in exponent notation.

1. 6^4
2. x^4y^2
3. $(^-2)^4$
4. 5^8
5. $(^-3a)^3$
6. 9^3x^3
7. 4^5
8. $7^2a^3b^3$
9. 1^7

Evaluate each of the following expressions.

10. 216
11. 256
12. $^-125$
13. 36
14. 512
15. 256
16. 576
17. $^-288$
18. $^-16$
19. $^-64$

Evaluate each of the following expressions.

20. 16
21. 255
22. 2
23. 1875
24. 55
25. $^-352$
26. 960
27. $\frac{58}{241}$
28. $\frac{^-16}{25}$
29. $^-231$