

Chapter 9 Review

9.1 The Learner Will find prime factorizations of integers and monomials.**The Learner Will find the greatest common factors of integers and monomials.****Find the prime factorization of each integer.**

1) -180

2) 32

3) 144

Find the GCF of the given integers and monomials.

4) 48, 64

5) $20xy$, $36x^2y^2$

6) $27p^2q$, $72m^2n^3$

9.2 The Learner Will factor polynomials by using the Distributive Property.**The Learner Will solve quadratic equations of the form $ax^2 + bx = 0$** **Factor each polynomials.**

7) $24m^2np^2 + 36m^2n^2p$

8) $4ax + 3ay + 4bx + 3by$

Solve each equation.

9) $(3x - 7)(4x + 5) = 0$

10) $(5m)(3m+8) = 0$

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9.3 Factor and solve trinomials of the form $x^2 + bx + c = 0$ **Factor each trinomial.**

11) $x^2 - 6x - 7$

12) $y^2 + 13y + 40 = 0$

13) $18 - 9r + r^2$

Solve each equation by factoring.

14) $m^2 + 4m - 12 = 0$

15) $x^2 = 50 - 23x$

16) $m^2 - 19m + 48$

17) $n^2 + 6w - 72 = 0$

18) $t^2 - 22t + 21 = 0$

19) $x^2 - 2x - 35 = 0$

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9.4 The Learner Will factor and solve trinomials of the form $ax^2 + bx + c = 0$ **Factor each trinomials.**

20) $2x^2 + 5x - 2$

21) $5r^2 + 27r + 10$

Solve each trinomials by factoring

22) $3p^2 - 25p + 16 = 0$

23) $2r^2 - 9r - 18 = 0$

24) $8n^2 - 6n - 9 = 0$

25) $6x^2 + 17x + 5 = 0$

9.5 The Learner Will factor and solve binomials involving difference of square.**Solve each binomials by factoring.**

26) $49x^2 - 144 = 0$

27) $25a^2 = 36$

28) $18a^4 - 72a^2 = 0$

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9.6 The Learner Will factor perfect square trinomials and solve equations involving perfect squares.**Factor each polynomial.**

29) $a^2 + 16a + 64$

30) $9k^2 - 42k + 49$

31) $18g^2 - 48g + 32$

32) $32n^2 - 80n + 50$

Solve each polynomial by factoring.

33) $49r^2 - 28r + 4 = 0$

34) $49m^2 - 126m + 81 = 0$

The Learner Will apply factoring knowledge to solve word problems.

35) The product of two consecutive even integers is 168. Find the integers. Be sure to check your final answer.

36) The product of two consecutive odd integers is 195. Find the integers. Be sure to check your final answer.