

U1L3 - Factoring Quiz - More Factoring Practice

Factor by grouping.

1) $3r^3 - 4r^2 - 9r + 12$

2) $a^3 + 4a^2 + 5a + 20$

3) $5n^3 + n^2 - 25n - 5$

4) $15n^3 - 10n^2 + 12n - 8$

Factor each Difference of Squares completely. (Don't forget to check for common factors!)

5) $25x^2 - 4$

6) $n^2 - 25$

7) $5x^2 - 20$

8) $16r^2 - 1$

9) $4x^2 - 64$

10) $64m^2 - 4$

Factor each Perfect Square completely.

11) $25n^2 - 40n + 16$

12) $9k^2 - 12k + 4$

Factor each completely. Note - check for common factors!

13) $6r^4 - 30r^3 + 24r^2$

14) $a^4 + 11a^3 + 30a^2$

15) $n^2 - n - 30$

16) $5a^2 + 5a - 60$

Factor each completely. Note - there are no common factors here.

17) $2n^2 - 3n - 5$

18) $7p^2 - 23p - 20$

$$19) 2x^2 + 11x - 21$$

$$20) 2x^2 + 13x - 45$$

$$21) 5x^2 - 38x + 21$$

$$22) 7k^2 - 3k - 10$$

$$23) 9x^2 - 15x - 50$$

$$24) 10k^2 - 43k - 9$$

$$25) 8p^2 + 63p + 49$$

$$26) 6r^2 + 7r - 90$$

Answers to U1L3 - Factoring Quiz - More Factoring Practice

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|--------------------------|-------------------------|-------------------------|-------------------------|
| 1) $(r^2 - 3)(3r - 4)$ | 2) $(a^2 + 5)(a + 4)$ | 3) $(n^2 - 5)(5n + 1)$ | 4) $(5n^2 + 4)(3n - 2)$ |
| 5) $(5x + 2)(5x - 2)$ | 6) $(n + 5)(n - 5)$ | 7) $5(x + 2)(x - 2)$ | 8) $(4r + 1)(4r - 1)$ |
| 9) $4(x + 4)(x - 4)$ | 10) $4(4m + 1)(4m - 1)$ | 11) $(5n - 4)^2$ | 12) $(3k - 2)^2$ |
| 13) $6r^2(r - 1)(r - 4)$ | 14) $a^2(a + 6)(a + 5)$ | 15) $(n + 5)(n - 6)$ | 16) $5(a + 4)(a - 3)$ |
| 17) $(2n - 5)(n + 1)$ | 18) $(7p + 5)(p - 4)$ | 19) $(2x - 3)(x + 7)$ | 20) $(2x - 5)(x + 9)$ |
| 21) $(5x - 3)(x - 7)$ | 22) $(7k - 10)(k + 1)$ | 23) $(3x + 5)(3x - 10)$ | 24) $(5k + 1)(2k - 9)$ |
| 25) $(p + 7)(8p + 7)$ | 26) $(2r + 9)(3r - 10)$ | | |