

Factoring with GCF and Multiplying Polynomials

Date _____ Period _____

Factor each completely.

1) $p^2 - 11p + 10$

2) $5a^2 - 30a - 80$

3) $p^2 - 2p - 15$

4) $n^2 + 9n + 20$

5) $5a^2 + 35a - 40$

6) $6x^2 - 24x - 72$

7) $6x^2 + 36x$

8) $5x^2 - 15x - 200$

Find each product.

9) $4v^2(v + 4)$

10) $8(3m - 1)$

11) $(6x + 3)(2x + 5)$

12) $(5v + 1)(4v + 7)$

13) $(7n - 5)(5n - 5)$

14) $(5k + 1)(2k + 1)$

15) $(7b - 8)(5b^2 - b - 5)$

16) $(7k - 1)(2k^2 - 8k + 2)$

Answers to Factoring with GCF and Multiplying Polynomials

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|-------------------------------|----------------------|--------------------------------|-----------------------|
| 1) $(p - 10)(p - 1)$ | 2) $5(a - 8)(a + 2)$ | 3) $(p + 3)(p - 5)$ | 4) $(n + 5)(n + 4)$ |
| 5) $5(a - 1)(a + 8)$ | 6) $6(x - 6)(x + 2)$ | 7) $6x(x + 6)$ | 8) $5(x - 8)(x + 5)$ |
| 9) $4v^3 + 16v^2$ | 10) $24m - 8$ | 11) $12x^2 + 36x + 15$ | 12) $20v^2 + 39v + 7$ |
| 13) $35n^2 - 60n + 25$ | 14) $10k^2 + 7k + 1$ | 15) $35b^3 - 47b^2 - 27b + 40$ | |
| 16) $14k^3 - 58k^2 + 22k - 2$ | | | |