

Factorization Worksheet 1

II. Greatest Common Monomial Factor

Factor, write prime if prime.

$$12a^3b + 15ab^3 = 3ab(4a^2 + 5b^2)$$

1. $6x + 3$
2. $24x^2 - 8x$
3. $6x - 12$
4. $2x^2 + 8x$
5. $4x + 10$
6. $10x^2 + 35x$
7. $10x^2y - 15xy^2$
8. $12x^2 - 9x + 15$
9. $3n^3 - 12n^2 - 30n$
10. $9m^2 - 4n + 12$
11. $2x^3 - 3x^2 + 5x$
12. $13m + 26m^2 - 39m^3$
13. $17x^2 + 34x + 51$
14. $18m^2n^4 - 12m^2n^3 + 24m^2n^2$

Answers

1. $3(2x + 1)$
2. $8x(3x - 1)$
3. $6(x - 2)$
4. $2x(x + 4)$
5. $2(2x + 5)$
6. $5x(2x + 7)$
7. $5xy(2x - 3y)$
8. $3(4x^2 - 3x + 5)$
9. $3n(n^2 - 4n - 10)$
10. prime
11. $x(2x^2 - 3x + 5)$
12. $13m(1 + 2m - 3m^2)$
13. $17(x^2 + 2x + 3)$
14. $6m^2n^2(3n^2 - 2n + 4)$