

Algebra 1

Name _____ ID: 1

Assignment

Date _____ Period _____

Factor the common factor out of each expression.

1) $-10a^5 + 2a^2$

$$2a^2(-5a^3 + 1)$$

2) $3b^2 + 5b$

$$b(3b + 5)$$

3) $16n + 20$

4) $-6v + 3$

5) $2n - 2$

6) $-5x^5 - 25x$

7) $x^2 - x$

8) $-16v^3 - 12v$

9) $-2x^6 + 4$

10) $-4a^4 + 20a^2$

11) $-6x^5 + 6x^3y + 12x^3$

$$6x^3(-x^2 + y + 2)$$

12) $24x^7y^3 + 72x^2y^4 - 32x^2y^3$

13) $2x^2y + 2x^2y^5 + 6x^4$

14) $10m^7n^3 + 12m^5n^4 + 6m^4n$

15) $8x^5y^2 + 4x^5y - 10x^4y$

16) $18x^5y - 18x^2y^2 + 6xy^2$

17) $5b^2a^2 + 45b^3 + 20b^2$

18) $49x^3y^2 + 14x + 42$

19) $48xy^2 - 24xy - 56x^2$

20) $36 + 16x^2 - 28y^2$

$$8x(6y^2 - 3y - 7x)$$

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$2a^2(-5a^3 + 1)$

2) $3b^2 + 5b$

$b(3b + 5)$

3) $16n + 20$

$4(4n + 5)$

4) $-6v + 3$

$3(-2v + 1)$

5) $2n - 2$

$2(n - 1)$

6) $-5x^5 - 25x$

$-5x(x^4 + 5)$

7) $x^2 - x$

$x(x - 1)$

8) $-16v^3 - 12v$

$-4v(4v^2 + 3)$

9) $-2x^6 + 4$

$2(-x^6 + 2)$

10) $-4a^4 + 20a^2$

$4a^2(-a^2 + 5)$

$$11) -6x^5 + 6x^3y + 12x^3$$
$$6x^3(-x^2 + y + 2)$$

$$12) 24x^7y^3 + 72x^2y^4 - 32x^2y^3$$
$$8x^2y^3(3x^5 + 9y - 4)$$

$$13) 2x^2y + 2x^2y^5 + 6x^4$$
$$2x^2(y + y^5 + 3x^2)$$

$$14) 10m^7n^3 + 12m^5n^4 + 6m^4n$$
$$2m^4n(5m^3n^2 + 6mn^3 + 3)$$

$$15) 8x^5y^2 + 4x^5y - 10x^4y$$
$$2x^4y(4xy + 2x - 5)$$

$$16) 18x^5y - 18x^2y^2 + 6xy^2$$
$$6xy(3x^4 - 3xy + y)$$

$$17) 5b^2a^2 + 45b^3 + 20b^2$$
$$5b^2(a^2 + 9b + 4)$$

$$18) 49x^3y^2 + 14x + 42$$
$$7(7x^3y^2 + 2x + 6)$$

$$19) 48xy^2 - 24xy - 56x^2$$
$$8x(6y^2 - 3y - 7x)$$

$$20) 36 + 16x^2 - 28y^2$$
$$4(9 + 4x^2 - 7y^2)$$