

# GCF Polynomials

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Find the greatest common factor for each pair of polynomial.

1

$$(25m^4 + 5m^3), (-5m^4 + 5m^3)$$

GCF = \_\_\_\_\_

2

$$(-9y^3 - 9y^2), (-7y^3 - 7y^2)$$

GCF = \_\_\_\_\_

3

$$(6x^4 + 6x^3), (9x^3 - x^2)$$

GCF = \_\_\_\_\_

4

$$(3t^4 + 9t^3), (5t^5 + 15t^4)$$

GCF = \_\_\_\_\_

5

$$(5a^4 + 5a^3), 20(5a^5 + 4a^4)$$

GCF = \_\_\_\_\_

6

$$(2a^3 + 3a^2), (6a^2 + 9a)$$

GCF = \_\_\_\_\_

7

$$(3y^3 + 6y^2), (-8y^2 + 9y)$$

GCF = \_\_\_\_\_

8

$$5(x^2 + 3x)^2, 10(x + 3)^2$$

GCF = \_\_\_\_\_

9

$$(-9x^4 - 18x^3), (-10x^2 + 12x)$$

GCF = \_\_\_\_\_

10

$$(3a - 9b)^2, (3a - 9b)^2$$

GCF = \_\_\_\_\_

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Find the greatest common factor for each pair of polynomial.

1

$$(25m^4 + 5m^3), (-5m^4 + 5m^3)$$

$$\text{GCF} = \underline{\hspace{2cm}} 5m^3$$

2

$$(-9y^3 - 9y^2), (-7y^3 - 7y^2)$$

$$\text{GCF} = \underline{\hspace{2cm}} y^2(-y-1)$$

3

$$(6x^4 + 6x^3), (9x^3 - x^2)$$

$$\text{GCF} = \underline{\hspace{2cm}} x^2$$

4

$$(3t^4 + 9t^3), (5t^5 + 15t^4)$$

$$\text{GCF} = \underline{\hspace{2cm}} t^3(t + 3)$$

5

$$(5a^4 + 5a^3), 20(5a^5 + 4a^4)$$

$$\text{GCF} = \underline{\hspace{2cm}} 5a^3$$

6

$$(2a^3 + 3a^2), (6a^2 + 9a)$$

$$\text{GCF} = \underline{\hspace{2cm}} a(2a + 3)$$

7

$$(3y^3 + 6y^2), (-8y^2 + 9y)$$

$$\text{GCF} = \underline{\hspace{2cm}} y$$

8

$$5(x^2 + 3x)^2, 10(x + 3)^2$$

$$\text{GCF} = \underline{\hspace{2cm}} 5(x + 3)^2$$

9

$$(-9x^4 - 18x^3), (-10x^2 + 12x)$$

$$\text{GCF} = \underline{\hspace{2cm}} x$$

10

$$(3a - 9b)^2, (3a - 9b)^2$$

$$\text{GCF} = \underline{\hspace{2cm}} 9(3b - a)^2$$