

## What Are Polynomials?

**1** Fill in the blank.

The number part of a term is called the coefficient.

**2** Fill in the blank.

If a term in a polynomial only has a number part, it's called a constant term.

**3** How many terms does this polynomial have?

$$5x^3 - x^2 + 5x - 8$$

4

**4** Write the degree of each of these terms in the blank next to it.

$$3x^2 \quad \underline{2} \quad \text{or } 2^{\text{nd}}$$

$$10x \quad \underline{1} \quad \text{or } 1^{\text{st}}$$

$$6x^3 \quad \underline{3} \quad \text{or } 3^{\text{rd}}$$

$$x^2y^2 \quad \underline{4} \quad \text{or } 4^{\text{th}}$$

**5** What is the coefficient of the 3rd degree term in this polynomial?

$$3x^2 + x - 2x^3 - 10$$

-2

**6** What is the coefficient of the 2nd degree term in this polynomial?

$$x^2 + 2x - 5$$

1

**7** What is the degree of this polynomial?

$$4x^5 - 3x^2 + x$$

5 or  $5^{\text{th}}$

**8** What is the degree of this polynomial?

$$4xy - 3y + 8$$

2 or  $2^{\text{nd}}$

**9** Re-arrange this polynomial so its terms are in order from highest to lowest.

$$5x + 2x^3 - 15 - 7x^2$$

$$2x^3 - 7x^2 + 5x - 15$$

**10** Re-arrange this polynomial so its terms are in order from highest to lowest.

$$7 + 2xy - 4x^3y + 5x$$

$$-4x^3y + 2xy + 5x + 7$$