

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

Identifying Polynomial Degree

Find the total degree of each polynomial.

1. $7m^5n^4 + 6m^2z^4 - 4n^4z + 5m^3$

2. $-9z^5$

3. $-3n^6x^2z^5 - 2n^5x^5 - 9n^2x^4z - 6xz^5 + 3z^4 + 6z^2$

4. $7n^5p^4y^7 - 4p^5y^5 - 5n^4y^4 + 5p^6 - 2p^2$

5. $-6p^2 - m$

6. $-4p^3y^5z^7 - 2py^6 - p^5$

7. $4n^4y^6z$

8. $5m^7y^5z + 3m^2y^4 + 2z^2$

9. $5n^3p^5x^6 + 7np^7x^3$

10. $4n^6x^2z^4 - 2n^6 - 7x^3z^3 - z^5 + 9n$

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Identifying Polynomial Degree

Answer key

Find the total degree of each polynomial.

1. $7m^5n^4 + 6m^2z^4 - 4n^4z + 5m^3$

Degree 1

$$5 + 4 = 9$$

Degree 2

$$2 + 4 = 6$$

Degree 3

$$4 + 1 = 5$$

Degree 4

$$3 = 3$$

Degree: 9

2. $-9z^5$

Degree 1

$$5 = 5$$

Degree: 5

3. $-3n^6x^2z^5 - 2n^5x^5 - 9n^2x^4z - 6xz^5 + 3z^4 + 6z^2$

Degree 1

$$6 + 2 + 5 = 13$$

Degree 2

$$5 + 5 = 10$$

Degree 3

$$2 + 4 + 1 = 7$$

Degree 4

$$1 + 5 = 6$$

Degree 5

$$4 = 4$$

Degree 6

$$2 = 2$$

Degree: 13

4. $7n^5p^4y^7 - 4p^5y^5 - 5n^4y^4 + 5p^6 - 2p^2$

Degree 1

$$5 + 4 + 7 = 16$$

Degree 2

$$5 + 5 = 10$$

Degree 3

$$4 + 4 = 8$$

Degree 4

$$6 = 6$$

Degree 5

$$2 = 2$$

Degree: 16

5. $-6p^2 - m$

Degree 1

$$2 = 2$$

Degree 2

$$1 = 1$$

Degree: 2

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Identifying Polynomial Degree

Answer key

Find the total degree of each polynomial.

6. $-4p^3y^5z^7 - 2py^6 - p^5$

Degree 1

$$3 + 5 + 7 = 15$$

Degree 2

$$1 + 6 = 7$$

Degree 3

$$5 = 5$$

Degree: 15

7. $4n^4y^6z$

Degree 1

$$4 + 6 + 1 = 11$$

Degree: 11

8. $5m^7y^5z + 3m^2y^4 + 2z^2$

Degree 1

$$7 + 5 + 1 = 13$$

Degree 2

$$2 + 4 = 6$$

Degree 3

$$2 = 2$$

Degree: 13

9. $5n^3p^5x^6 + 7np^7x^3$

Degree 1

$$3 + 5 + 6 = 14$$

Degree 2

$$1 + 7 + 3 = 11$$

Degree: 14

10. $4n^6x^2z^4 - 2n^6 - 7x^3z^3 - z^5 + 9n$

Degree 1

$$6 + 2 + 4 = 12$$

Degree 2

$$6 = 6$$

Degree 3

$$3 + 3 = 6$$

Degree 4

$$5 = 5$$

Degree 5

$$1 = 1$$

Degree: 12