

Polynomials STUDY GUIDE

#1-2 Find the degree of the following polynomial. Then determine if it is a monomial, binomial, or trinomial.

1) $7ab + 6b^2 - 2a^3$ Degree: Polynomial Type:	2) $8x^3y^2 + 2y^4 - 3x$ Degree: Polynomial Type:
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3) Determine whether or not the following is a polynomial.
 $2x^2 - 45xy + 6y^2$

#4-5 Write the following in standard form and identify the leading coefficient.

4) $2x^5 - 12 + 18x$ Standard Form: Leading Coefficient:	5) $2x^4 - 3x^5 + 5x^2 - 10$ Standard Form: Leading Coefficient:
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#6-10 Find the sum or difference of the following. Be sure to simplify (combine like terms)

6) $(z^2 + 8z - 6) + (7z - 4)$	7) $(-8xy + 3x^2 - 5y) + (4x^2 - 2y + 6xy)$
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8) $(2x + 3x^2) - (7 - 8x^2)$	9) $(4rxt - 8r^2x + x^2) - (6rx^2 + 5rxt - 2x^2)$
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10) $(3n^3 + 3n - 10) - (4n^2 - 5n) + (4n^3 - 3n^2 - 9n + 4)$

#11- 13 Find the product the following. Be sure to simplify (combine like terms)

11)

$$b(b^2 - 12b + 1)$$

12)

$$4km^2 (8km^2 + 2k^2m + 5k)$$

13)

$$-3(5x^2 + 2x + 9) + x(2x - 3)$$

#14- 16 Multiply the following polynomials. Be sure to simplify (combine like terms)

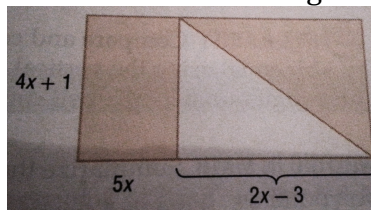
14)

$$(g + 10)(2g - 5)$$

15)

$$(4y^2 - 3)(4y^2 + 7y + 2)$$

16) Find an expression to represent the area of the shaded region



#17-19 Use special products to solve the following. Be sure to simplify (combining like terms).

17)

$$(x + 5)^2$$

18)

$$(8 - 10a)^2$$

19)

$$(2c - 9d)(2c + 9d)$$