

6.3 Adding and Subtracting Polynomials

Degree of a Polynomial:
The term with the largest exponent or exponent sum

Determine the degree of each polynomial

$2x^2 + 3y^5$ | $\frac{7x^3y^2 - 8xy^2}{2+3 \quad 1+2}$ Degree: 5

⑤ ③

Simplify each of the following and state the degree of the polynomial

a) $3c + 2d - 5c - 3d - 5d + c$
 $-1c - 6d$ * Write terms in alphabetical order.
 Degree: 1

b) $(6y - 2x + z) - (3x - 5y - 2z)$
 $6y - 2x + z - 3x + 5y + 2z$
 $-5x + 11y + 3z$ Degree: 1

c) $(4y - 3xy - x^3) + (-3x^3 - 5y + 2xy)$
 $-4x^3 - 1xy - 1y$ * Highest degree term goes first but still in alphabetical order.
 Degree: 3

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The cost, in dollars, of holding a school dance for x students is $0.5x + 450$.
 The income, in dollars, from ticket sales to x students is $3.5x$.

a) Write a formula for the profit, P dollars, from holding a dance for x students.

Profit = Income - Costs.

$P = 3.5x - (0.5x + 450)$

$P = 3.5x - 0.5x - 450$

$P = 3x - 450$

b) Calculate the number of students needed for the dance to break even.

$0 = 3x - 450$

$+450 \quad +450$

$450 = 3x$

$x = 150$ people

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6.4 Multiplying Monomials and Polynomials

Expand the following \rightarrow make it bigger

$3b(b + 3)$

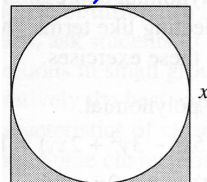
$3b^2 + 9b$

$-2x(x^2 - 3x - 4)$

$-2x^3 + 6x^2 + 8x$

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Determine an expression for the area of each shaded region.

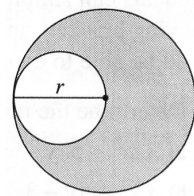


\rightarrow eqn or formula.

Area of \square - Area of \circ
 $(x)(x) - \pi\left(\frac{x}{2}\right)^2$

$1x^2 - \frac{\pi x^2}{4}$

$\left(1 - \frac{\pi}{4}\right)x^2$



Large Circle - Small Circle

$\pi r^2 - \pi\left(\frac{r}{2}\right)^2$

$\left(\pi - \frac{\pi}{4}\right)r^2$

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$$5x - 4x$$
$$1x$$

Nov 17-2:02 PM

Assignment:

Pg. 342

3 odds, 4, 8 odds, 9, 11 odds, 14

Pg. 347

1, 4 and 5 odds

7, 21 and 22a

Apr 25-10:03 AM