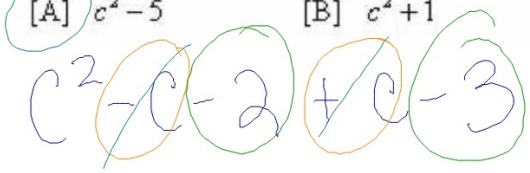
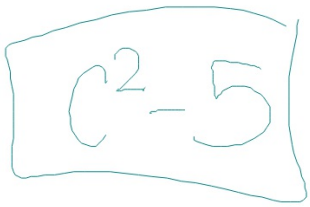
AM: Add Polynomials

1. If $S(c) = c^2 - c - 2$ and $T(c) = c - 3$, find $S(c) + T(c)$.

[A] $c^2 - 5$ [B] $c^2 + 1$ [C] $c^2 - c - 5$ [D] $c^2 - 2c + 1$





AM: Add Polynomials

2. $(8z^4+8z^3-6)+(7z^4-6z+6)$ 4 3 1 #

[A] $15z^4+2z^3$

[B] $z^4+8z^3+6z-12$

[C] $z^4+8z^3-6z-12$

[D] $15z^4+8z^3-6z$

$$\begin{array}{r} 8z^4+8z^3+0z-6 \\ +\ 7z^4+0z^3-6z+6 \\ \hline 15z^4+8z^3-6z \end{array}$$

AM: Add Polynomials

3. $(3x^2y^3 + 3x^3y^2 - 9xy) + (3x^3y^2 - 7xy + 5x^2y^3)$

[A] $6x^3y^2 + 8x^2y^3 - 2xy$

[B] $6x^3y^2 - 4x^2y^3 - 4xy$

[C] $6x^3y^2 + 8x^2y^3 - 16xy$

[D] $6x^3y^2 - 4x^2y^3 - 16xy$

$3x^2y^3 + 3x^3y^2 - 9xy + 3x^3y^2 - 7xy + 5x^2y^3$

$8x^2y^3 + 6x^3y^2 - 16xy$

$6x^3y^2 + 8x^2y^3 - 16xy$

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AM: Subtract Polynomials

1. $(-2x^3 - 3x^2 - 8) - (-4x^3 - 9x^2 - 6)$

[A] $2x^3 + 6x^2 - 2$

[B] $-6x^3 - 12x^2 - 14$

[C] $-6x^3 - 12x^2 - 2$

[D] $2x^6 + 6x^4 - 2$

$-2x^3 - 3x^2 - 8 + 4x^3 + 9x^2 + 6$

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

AM: Subtract Polynomials

2. $(-5x^2+8x)-(-2x+4+3x^2)$

[A] $-8x^2+10x-4$

[B] $-3x^2+11x+4$

[C] $11x^2+6x+4$

[D] $-2x^2-10x-4$

$-5x^2+8x+0$

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

$-8x^2+10x-4$

AM: Subtract Polynomials

3. Subtract $5x^3 - 6x^2 + 4x - 5$ from $3x^3 + 2x^2 + 5$.

[A] $-2x^3 - 8x^2 - 4x$

[B] $-2x^3 - 8x^2 + 4x + 10$

[C] $-2x^3 + 8x^2 - 4x + 10$

[D] $2x^3 - 8x^2 + 4x$

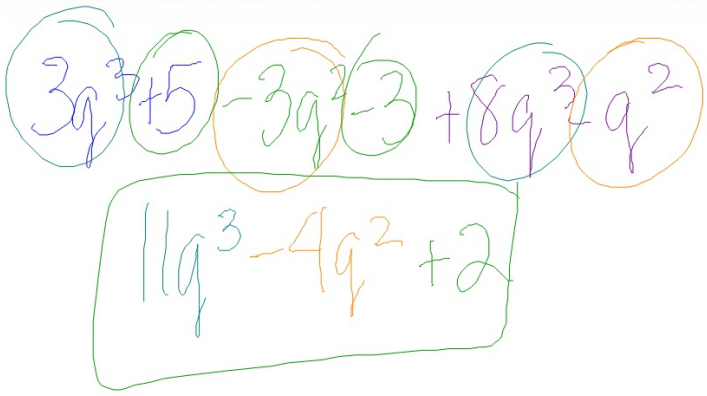
$$3x^3 + 2x^2 + 0x - 5$$
$$-(5x^3 - 6x^2 + 4x - 5)$$
$$-2x^3 + 8x^2 - 4x$$

AM: Add and subtract polynomials

1. $(3q^3+5)-(3q^2+3)+(8q^3-q^2)$

[A] $11q^3-4q^2+2$ [B] $11q^3-4q^2+8$

[C] $11q^3+4q^2-2$ [D] $-5q^3-4q^2+8$



AM: Add and subtract polynomials

2. $(9w^4 - 6) - (5w^3 - 3) - (5w^4 - 5w^3)$ 4 3 #

[A] $14w^4 - 3$ [B] $14w^4 - 9$ [C] $4w^4 + 3$ [D] $4w^4 - 3$

$9w^4 + 0w^3 - 6$

$-(0w^4 + 5w^3 - 3)$

$-(5w^4 - 5w^3 + 0)$

$4w^4 - 3$

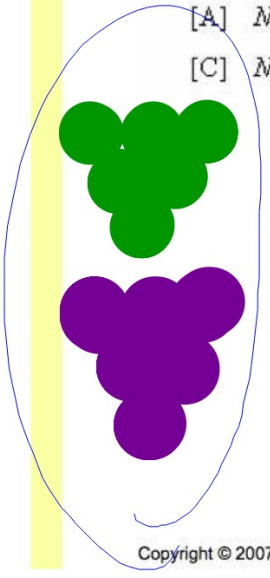
$4w^4 - 3$

AM: Add and Subtract Polynomials

1. During the years 1992 through 1996, the average number of green grapes, G, sold by a large farmer's market can be modeled by $G = -0.11t^2 + 1.92t + 54.15$. The average number of red grapes, R, sold by the farmer's market can be modeled by $R = 0.003t^2 - 0.634t + 81.93$. Determine the model representing the average number of grapes, N, sold from 1992 through 1996.

[A] $N = -0.107t^4 + 1.286t^2 + 136.08$ [B] $N = 0.107t^4 + 2.554t^2 + 136.08$

[C] $N = 0.107t^2 + 2.554t + 136.08$ [D] none of these



$G = -0.11t^2 + 1.92t + 54.15$

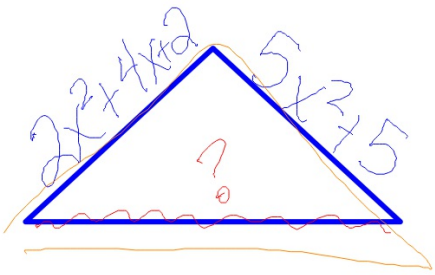
$+ \; R = 0.003t^2 - 0.634t + 81.93$

$N = -.107t^2 + 1.286t + 136.08$

AM: Add and Subtract Polynomials

2. The lengths of two sides of a triangle are given by the expressions $2x^2+4x+2$ and $5x^2+5$. The perimeter of the triangle is $11x^2+7x+3$. Find a polynomial expression that represents the length of the missing side.

[A] $4x^2+11x+10$ [B] $4x^2-3x+6$ [C] $4x^2-3x+11$ [D] none of these



$7x^2+4x+7$

$11x^2+7x+3$

$-(7x^2+4x+7)$

$4x^2+3x-4$

AM: Add and Subtract Polynomials

3. The number of worms on an atoll in the Pacific Ocean can be modeled by $8x^2+8x+120$. Two acres of land break off and fall back into the sea taking $4x^2+3x-64$ worms with it. How many worms are left on the remaining land?

[A] $4x^2+11x+56$ [B] $12x^2+11x+56$ [C] $2x+248$ [D] $4x^2+5x+184$

$4x^2+5x+184$