

Jeopardy

Algebra I Polynomials

Gupton GMS 2009-Collins BMS 2012

Today's Categories

- Sum Times
- What's the difference?
- Products Never Purchased
- Factors that lead to Success
- Dexter's Laboratory

Jeopardy

Polynomials

Sum Times	What's the Difference?	Products Never Purchased	Factors that lead to Success	Dexter's Laboratory
<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>
<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>
<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>
<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>

Sum Times for 100

The perimeter of a square with side length of $2x$.
(classify)



Sum Times for 200

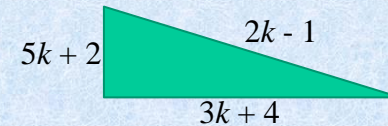
Simplify and classify:

$$(7x^3 - 5x^2 + 3x - 1) \\ + (-8x^3 + 3x^2 - 8x + 15)$$



Sum Times for 300

Find the perimeter and classify the polynomial.



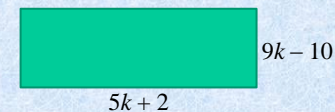
Sum Times for 400

$$(6.3x^3 - 5x^2 + 4x - 2) \\ + (-7.1x^3 - 3x^2 - 4x + 5) \\ + (8x^3 + x^2 + 7)$$



Sum Times for 500

Find the perimeter and classify the polynomial.



**"What's the difference?" for
100**

$$\left(\frac{1}{3}x^2 + \frac{3}{8}x - \frac{5}{8}\right) - \left(-8x^2 - \frac{2}{3}x - \frac{7}{8}\right)$$

The Difference Between Two Polynomials									
What is the difference?									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

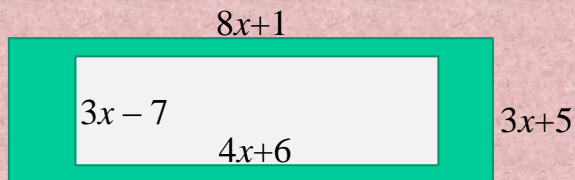
**"What's the difference?" for
200**

$$\left(5.25x^2 - \frac{7}{8}x - \frac{5}{8}\right) - \left(1.5x^2 - 0.45x + 0.3\right)$$

The Difference Between Two Polynomials									
What is the difference?									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

**"What's the difference?" for
300**

What is the area of the green region?



The Difference Between Two Polynomials									
What is the difference?									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

**"What's the difference?" for
400**

The perimeter of an isosceles triangle is $7x - 9$. If one side is $x + 1$, what is the length of each of the other two sides?

The Difference Between Two Polynomials									
What is the difference?									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

**"What's the difference?" for
500**

The perimeter of a rectangle is $14x + 2$. If this answer is the width, the length of the rectangle is $3x + y + 2$.



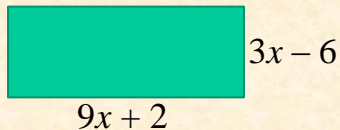
**Products Never Purchased for
100**

$$-1.5 (3x^3 - 6x^2 + 9x - 12)$$



**Products Never Purchased for
200**

Find the area and
classify the polynomial.



**Products Never Purchased for
300**

The area of a parallelogram with a base of $11x - \frac{1}{2}$ and a height of $11x + \frac{1}{2}$.



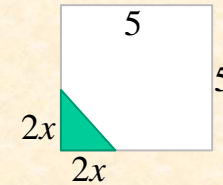
**Products Never Purchased for
400**

**The area of a square with
side length of $4x - 2.5$.**



**Products Never Purchased for
500**

The area of the unshaded region.



**Factors that lead to Success for
100**

Factor

$$x^2 - 13x - 30$$



**Factors that lead to Success for
200**

Factor

$$6x^3 + 18x^2 - 60x$$



**Factors that lead to Success for
300**

Factor

$$100x^3 - 240x^2 + 144x$$



**Factors that lead to Success for
400**

Factor $\frac{1}{4}x^2 - 225$



**Factors that lead to Success for
500**

**The side of a square if the
area is $25y^2 - 20y + 4$.**



Dexter's Laboratory for 100

**Dee Dee travels at a constant
speed of $2x+5$ m/s for $8x+7$
seconds. Express the distance
she travels as a trinomial.**



Dexter's Laboratory for 200

The total amount spent for health care in the United States in 1993 was \$884.2 billion. The US population in 1993 was 258.1 million. What was the average amount spent on health care *per person*? Express your answer in scientific notation and in dollars and cents.



Dexter's Laboratory for 300

Dexter determined that the function, $f(t) = -4.9t^2 + 49t$, can be used to determine the altitude in meters, $f(t)$, of his model rocket t seconds after it is launched. Use the function to determine the altitude 5 seconds after it is launched.



Dexter's Laboratory for 400

Calculate the zeroes of the function, $f(t) = -4.9t^2 + 49t$ and explain what they mean relative to the altitude of Dexter's rocket?



Dexter's Laboratory for 500

The length and width of Dexter's rectangular shaped lab are in a 5 : 3 ratio. Write and solve a system of equations to find the length and the width if the perimeter of the lab is 48.

What is a length of 15 units and width of 9 units?

Push the **Space Bar** to check your answer.

