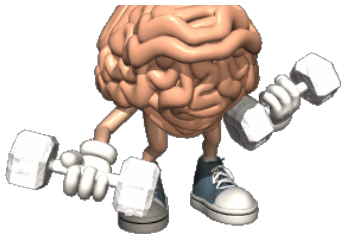


Warm Up

Copy warm-ups into your notebooks

1) Classify the following as either monomials, binomials, trinomials or not a polynomials

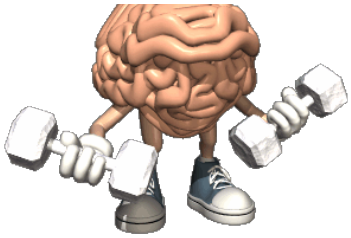
$3x^2 + 6y$	$\frac{4x^7}{z}$	$9x$	$2x^2 - 5x - 1$
binomial	Not	Monomial	Trinomial

2) What is the degree of the following polynomial? 12

$$13x^7 - 11x^{12} + 8x^9 - 9x^{11} - 5$$

3) Rewrite the above in decending order

$$-11x^{12} - 9x^{11} + 8x^9 + 13x^7 - 5$$



Warm Up

Copy warm-ups into your notebooks

4) Fill in the following

a) $-4x^6 - 7x^4 + 12$

Variables: x

Coefficients: $-4, -7$

Constants: 12

Degree: 6

b) $5x^2 + 6y$

Variables: x ; y

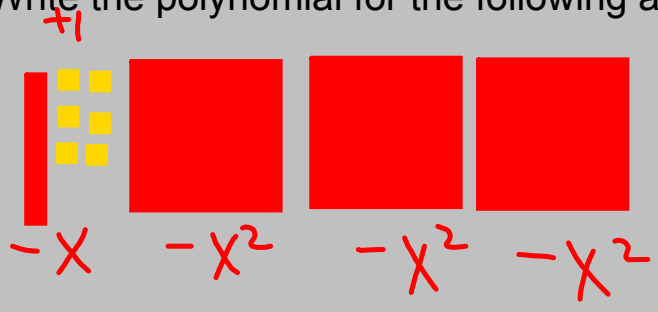
Coefficients: 5 ; 6

Constants: 0

Degree: 2

Warm Up

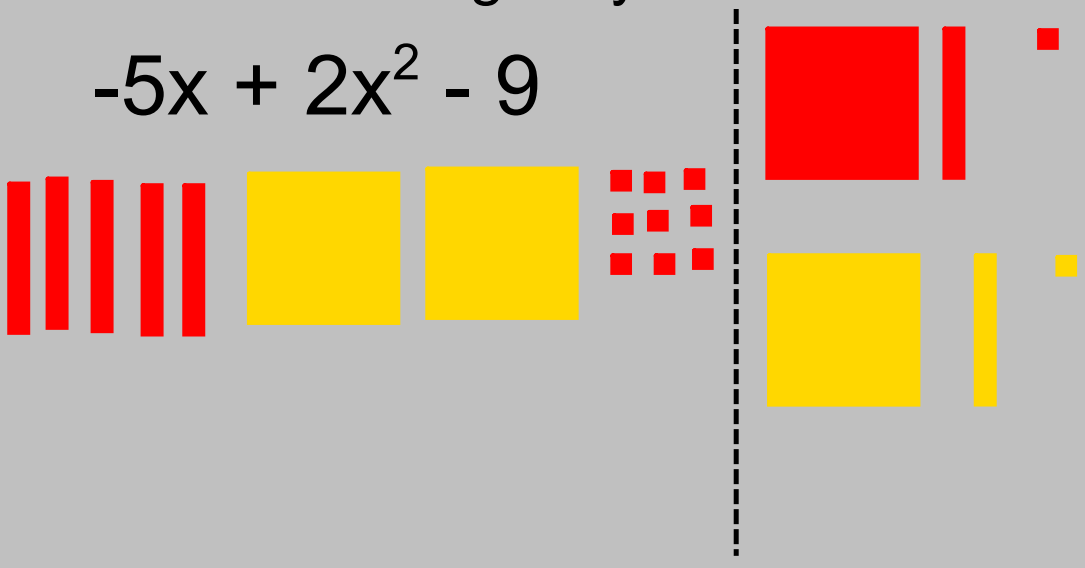
5) Write the polynomial for the following algebra tiles.



$-3x^2 - 1x + 6$

6) Model the following Polynomial

$-5x + 2x^2 - 9$



Class/ Homework

Check out pages 214 - 216

8 (hint write all in descending order)

9 (set up a chart)

10

11 abc

12 (Sketch the tiles and put expression beside it)

13 adeh (Sketch the tiles and put expression beside it)

14 ac

4. Which of the following expressions are polynomials? Explain how you know.

a) $2 + 3n$ b) $3\sqrt{x}$

c) $-5m + 1 + 2m^2$ d) 7

e) $\frac{1}{x^2} + \frac{1}{x} + 1$ f) $\frac{1}{2}s$

4. Parts a, c, d, and f; the terms in the polynomial are of degree 1, 2, or a constant.

5. Is each expression a monomial, binomial, or trinomial? Explain how you know.

a) $3t + 4t^2 - 2$ b) $5 - 3g$

c) $9k$ d) 11

5.

a) Trinomial; it has three terms of different degrees.

b) Binomial; it has two terms of different degrees.

c) Monomial: it has only one term of degree 1.

d) Monomial: it has only one term of degree 0.

6. Name the coefficient, variable, and degree of each monomial.

a) $-7x$ b) $14a^2$

c) m d) 12

6. **a)** Coefficient: -7: variable: x: degree: 1

b) Coefficient: 14; variable: a; degree: 2

c) Coefficient: 1; variable: m; degree: 1

d) No coefficient; no variable; degree: 0

7. Identify the degree of each polynomial. Justify your answers.

a) $7j^2 + 4$ b) $9x$

c) $2 - 5p + p^2$ d) -10

7. **a)** 2 **b)** 1

c) 2 **d)** 0

8. Identify the polynomials that can be represented by the same set of algebra tiles.

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

b) $-3 + 4n - n^2$

c) $4m - 3 + m^2$

d) $-4 + r^2 + 3r$

e) $-3m^2 + 4m - 3$

f) $-h^2 - 3 + 4h$

8. Parts a and d can be modelled by the same set of algebra tiles. Parts b and f can be modelled by the same set of algebra tiles.

9. Name the coefficients, variable, and degree of each polynomial. Identify the constant term if there is one.

a) $5x^2 - 6x + 2$ b) $7b - 8$

c) $12c^2 + 2$ d) $12m$

e) 18 f) $3 + 5x^2 - 8x$

9. **a)** Coefficients: 5, –6; variable: x; degree: 2; constant term: 2

b) Coefficient: 7; variable: b; degree: 1; constant term: –8

c) Coefficient: 12; variable: c; degree: 2; constant term: 2

d) Coefficient: 12; variable: m; degree: 1

e) No coefficients; no variable; degree: 0; constant term: 18

f) Coefficients: 5, –8; variable: x; degree: 2; constant term: 3

10. One student says, "4a is a monomial." Another student says, "4a is a polynomial." Who is correct? Explain.

10. Both students are correct. A monomial is a polynomial with one term.

11. Use algebra tiles to model each polynomial. Sketch the tiles.

a) $4x - 3$

b) $-3n - 1$

c) $2m^2 + m + 2$

d) $-7y$

e) $-d^2 - 4$

f) 3

11. a)

b)

c)

d)

d)

e)

f)

12. Match each polynomial with its corresponding algebra tile model.

a) $r^2 - r + 3$

b) $-t^2 - 3$

c) $-2v$

d) $2w + 2$

e) $2s^2 - 2s + 1$

Model A

Model B

Model C

Model D

Model E

12. **a)** B **b)** D

c) E **d)** A

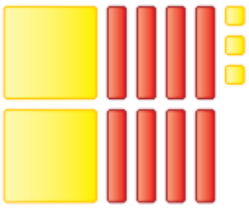
e) C

13. Which polynomial does each collection of algebra tiles represent?
Is the polynomial a monomial, binomial, or trinomial? Explain.

a) 

b) 

c) 

d) 

e) 

f) 

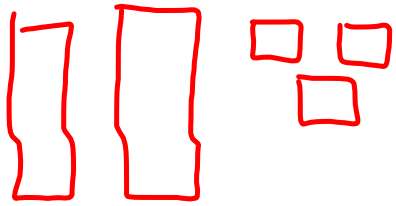
g) 

h) 

13. **a)** -16; monomial **b)** $x - 8$; binomial
c) $4x$; monomial **d)** $2x^2 - 8x + 3$; trinomial
e) $-5t + 5$; binomial **f)** $5x^2$; monomial
g) $-2x^2 + 2x - 3$; trinomial
h) $-3x^2 + 8$; binomial

14) degree : 1 term : 2

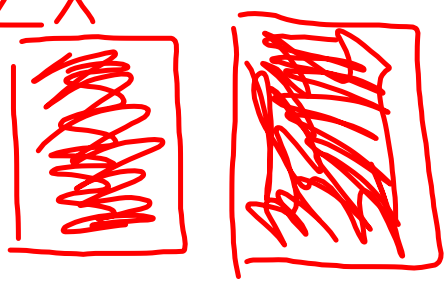
$2x + 3$



Many possible answers!

b) degree : 2 term : 1

$-2x^2$



Attachments

Course Outline Grade 9 2010-2011 Second Semester.docx