Name:

Incoming 8th grade ALGEBRA Summer Math Packet

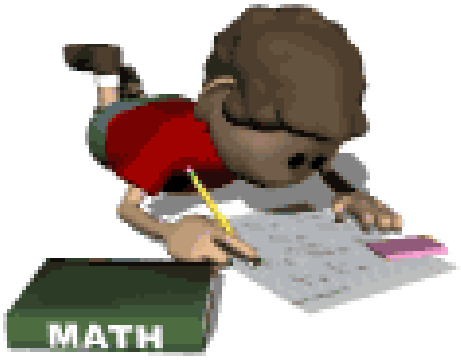
I know that you were worried about having to pass a whole summer without doing any math. Now you don't have to worry! ☺

This math packet will help you keep your math skills sharp, so that you don't go back to school in the fall and have to try to reach into the dusty recesses of your mind to find those math skills that you have been working so hard to develop this year.

This is excellent practice for your algebra course next year. It won't kill you to spend an hour each week keeping your math skills sharp. I will collect this, so don't wait until the end of August to get started. There is a key at the end, not for copying the answers, but rather for checking your work and helping you figure how to get an answer if you are stuck.

Enjoy your summer!

Mr. Kangas



"What do you call a cow that won't give milk?"

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $12 - 16$
2. $24 - 48$
3. $4 - 8 + 1$
4. $-7 + 16 - 2 + 3$
5. $19 - 13 - 7 - 1$
6. $4 - 8 + 10 - 6$
7. $-1 + 2 - 3 + 4 - 5 + 6$
8. $10 - 9 - 8 + 7 - 21$
9. $-50 - 250 + 100 + 50 - 75$

C. -11

N. -3

F. -21

L. -4

S. -125

P. 200

R. 0

D. 3

T. -15

I. -24

U. -225

M. 26

E. 10

Y. -8

A. -2

V. 19

5	3	9	7	7	4	6	8	5	2	1	9	6	4

"How is a bad joke like a poor pencil?"

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $(-3)(13)$

2. $(-2)(-15)$

3. $(-4)(2)(-3)$

4. $(-1)(-1)(1)(-1)$

5. $(-2)(-1)(3)(0)(-4)$

6. $\frac{-42}{3}$

7. $\frac{-120}{-3}$

8. $\frac{(-5)(-14)}{7}$

9. $\frac{(-6)(24)}{(8)(-3)}$

10. $\frac{(-2)(-3)(4)(-5)}{(-6)(-2)}$

U. -8

V. -14

C. 17

T. -10

S. 35

N. -1

I. 30

Y. 10

W. 5

H. 40

M. 13

O. -39

G. 2

A. 0

P. 6

E. 24

10	7	3	8	7	5	6	3	4	1	9	1	2	4	10

"What class is the owls' favorite in school?"

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $4 - (3)(-6)$

2. $(-5)(-11) - (6)(-10)$

3. $-9(5 - 13) + 17$

4. $21 - 2[8 + (-4)(10)]$

5. $(4)(-3)^2 + 17(5 - 7)$

6. $(19 - 21)^3(3) - (-4)^2$

7. $\dfrac{2 + 4(5 - 2)^3}{10}$

8. $\dfrac{-5(3) - 4(7)}{7 + 6(-1)}$

Y. 28

W. –43

A. 89

B. –40

S. –27

L. 115

T. –9

G. 11

N. –18

O. 2

R. 85

I. 38

H. 8

E. 22

5	8	2	–	7	1	6	4	3

"What do you call people who make allegations?"

Simplify the following expressions. Cross out the letter that matches your answer. The remaining letters will allow you to figure out the joke.

1. $3x + 5x + 14x$
2. $4x + 7 + 11x$
3. $10x + 8 - 3x$
4. $6x - 5 + x - 11$
5. $-8x + 19 + 2 - 2x$
6. $-x + 23 + 4x - 34 - x$
7. $105 + 27x - 68 - 19x - 27 + x$
8. $7x + 16 - 3x + 3 - 2x - 2x$
9. $-18 + 6 - 4x + 10 - 11x + 2$
10. $16 + 4x - 12x - 28 - 6x + 17 + x - 1$

A $9x - 5$	M $2x - 11$	L $12x$	E $15x + 7$	L $2x + 8$
N $7x - 16$	I $-15x + 11$	W $22x$	G $19x + 1$	U $9x + 10$
A $15x - 9$	T $5x + 21$	H 19	B $-15x$	O $10x + 7$
F $-13x + 4$	C $-10x + 21$	R $13x - 5$	S $7x - 20$	Y $7x + 8$

"What a matador tries to do."

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $6(x + 3)$
2. $8(x - 2)$
3. $4(2x + 5)$
4. $5(3x - 7)$
5. $-2(x + 6)$
6. $-3(x - 10)$
7. $7(11 - x)$
8. $-(2x - 15)$
9. $-3(-4x + 5)$

Y. $6x + 12$

M. $15x - 14$

A. $12x - 15$

V. $-7x + 77$

E. $8x - 16$

L. $-3x + 30$

W. $2x + 6$

I. $6x + 18$

O. $15x - 35$

N. $-2x - 6$

F. $7x - 8$

A. $8x + 20$

U. $x + 40$

C. $12x - 2$

B. $-2x + 15$

D. $-2x - 12$

9	7	4	1	5	3	8	6	2

"What do you call a horse that can't lose a race?"

Simplify the following expressions. Cross out the letter that matches your answer. The remaining letters will allow you to figure out the joke.

1. $2(5x - 1) + 3x$

2. $6x + 3(2x + 7)$

3. $7 - (3x - 4)$

4. $10 - 4(6 - x) + 5x$

5. $6(x - 4) + 10(2x + 3)$

6. $-3(6x - 5) + 2x - (-11x + 8)$

7. $2(8x - 13) - 8(2x - 4) + 6$

8. $5(-2x + 7) - (3x + 22)$

9. $4(9x - 1) + 5(3x + 7) - 6(x - 8)$

A $12x + 21$	S $10x - 7$	T $-13x + 13$	H $4x - 7$
E $9x - 20$	C $26x + 6$	U $13x - 2$	R $11x + 1$
L 12	B $24x - 8$	E $4x - 8$	M $9x - 14$
O $-3x + 11$	T $37x - 2$	N $45x + 79$	W $-5x + 7$

"How did the Vikings send secret messages?"

Solve for x. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $x + 6 = 23$
2. $x - 11 = 37$
3. $18 + x = 42$
4. $-4 + x = 16$
5. $x + 21 = 50$
6. $35 = 16 + x$
7. $x - 23 = 34$
8. $-1 + x = 29$
9. $63 = x - 2$
10. $13 + x = 40$
11. $-15 + x = 10$

C. 25

E. 20

N. 27

M. 21

Y. 48

O. 19

S. 17

T. 8

B. 30

L. 14

D. 29

O. 24

E. 65

I. 0

R. 57

A. 51

8	2	10	3	7	1	4	11	6	5	9

Solving Equations: $x + a = b$ Form

Joke #13

"Who wrote the book 'The Potato Tyrant'?"

Solve for x. Make sure you simplify your answer. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $2x + 7 = 10$
2. $-5x + 3 = 15$
3. $9 + 6x = -21$
4. $34 = 6 - 8x$
5. $\frac{x}{3} + 11 = 16$
6. $123 = -37 + 15x$
7. $10 - 70x = 150$
8. $-8 - \frac{x}{7} = -8$
9. $43 - 2x = 51$

P. 1

R. -5

O. $\frac{2}{3}$

C. $\frac{32}{3}$

K. 0

Y. $\frac{-1}{2}$

T. $\frac{3}{2}$

U. $\frac{7}{5}$

A. $\frac{-7}{2}$

D. -4

I. $\frac{-12}{5}$

S. -8

E. 15

M. 21

T. -2

N. $\frac{5}{3}$

9	2	6	8	1	4	7	5	3

Solving Equations: ax+b=c Form (possible fraction answers)

Joke #17

"Who wrote the book 'I Didn't Do It'?"

Solve for x. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $2 + 3x + 7 = -6$
2. $10x - 4x = 6$
3. $-17 = 4x + 8 - 9x$
4. $27 + 9 = -52x + 40x$
5. $102 + 44x + 26 = 40$
6. $52 + 4x - 3x - 41 = 15$
7. $27 = 2x + 7 - x + 3 + x - 1$
8. $-46 + 4 = 6 - 4x - 4x$
9. $5x + 7x + 47x = -2 - 1 + 3$

Y. –13

I. –3

S. 8

M. No Solution

A. 9

I. –5

E. 7

N. 4

A. 1

N. 11

C. –12

V. 6

L. 5

U. –7

B. 0

W. 10

I. –2

4	8	2	6	7	3	1	9	5

"Who wrote the book 'Grocery Packing at the Supermarket'?"

Solve for x. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $3(x + 2) = 21$

2. $5(2x - 1) = -25$

3. $-4(3x - 5) = -16$

4. $-2(4 - x) - 5 = 11$

5. $3(-6x + 7) + 4x = -7$

6. $2(3x - 4) + 5(2x + 3) = -9$

7. $-8(2 - x) - 4(x - 2) = 8$

8. $7(-x - 2) - (x - 5) = 31$

9. $5x - 2(6 - x) + 7 = 2$

10. $9(x + 3) - 5x - 3(5 + 3x) = 52$

M. 7

R. 1

S. 3

Z. 9

E. –5

A. –2

U. 4

W. –11

C. –18

B. –1

T. No Solution

D. –8

F. 25

G. 12

L. 5

O. 6

S. 2

9	7	5	3	8	1	10	6	2	4

"How do crazy people get through the forest?"

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $3x^2 + 7x - 5 + 2x^2$

2. $-2x^3 + 5x^2 + 8x^3 - 7x^2$

3. $-x + 9x^3 - 10x^4 + x^3 + 12x$

4. $15x^4 - 5x^3 - 8x^4 + x^2 + 9x^3$

5. $-7x^4 + 7x^5 - 7x^4 + 5x^5 - 12x^5$

6. $4x^5 - 3x^2 + 5x^4 - x^2 - 11x^5$

7. $-6x^2 + 11x + 13 - 7x + 8x^2 - 9$

8. $8x - 3x^5 - 3x + x^5 - 5x + 2x^5$

9. $10x^4 - 7x^3 - 6x^4 + x^2 - 4x^3 - 5x^2 + 3$

10. $5 + 3x^4 - 2x - 4x^3 + 8x^2$

11. $-11x^3 + 5x^3 - 2x^2 + 5x^2 + 7x^3 - 4x^2$

H. 0

P. $4x^4 - 11x^3 - 4x^2 + 3$

R. $-7x^5 - 2x^4 + 3x^2$

C. $5x^2 + 7x - 5$

S. $7x^4 + 4x^3 + x^2$

O. $x^3 - x^2$

U. $6x^5 - 14x^4$

E. $6x^3 - 2x^2$

Y. $-14x^4$

H. $2x^2 + 4x + 4$

M. $5x^2 + 7x - 8$

A. $-10x^4 + 10x^3 + 11x$

T. $3x^4 - 4x^3 + 8x^2 - 2x + 5$

N. $6x^3 + 4x^2$

K. $-7x^5 + 5x^4 - 4x^2$

D. $4x^4 - 11x^3 - 6x^2 + 1$

10	8	2	5	10	3	6	2	10	7	2	
9	4	5	1	8	11	9	3	10	7		

Finish the sentence: "Where there's smoke, there's ....."

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $(2x + 5x^2) + (3x^2 + 7x)$

2. $(3x^2 - 7) - (5x^2 - 6)$

3. $(-4x^2 + 5x - 1) + (3x^2 - 6x + 8)$

4. $(8x^2 + 3x) - (5x^2 - 6x - 9)$

5. $(-6x^2 + 8) + (10 - 2x - 7x^2)$

6. $(3x - 4x^2 - 1) - (x^2 + 5)$

7. $(-2x + 3x^2) - (7x - 4) + (9x^2 - 3x)$

8. $(13x^2 - 5x) - (10x^2 - 2x) - (x - 3)$

9. $(7x^2 + 6x - 5) - (4x + 3) + (2x^2 - x)$

B. $8x^2 + 12x$

O. $-13x^2 - 2x + 18$

L. $3x^2 - 4x + 3$

A. $-2x^2 - 6$

I. $8x^2 + 9x$

P. $9x^2 + x - 8$

N. $12x^2 - 12x + 4$

S. $-x^2 + x - 7$

U. $3x^2 + 9x + 9$

R. $3x^2 + 8x + 1$

O. $-5x^2 + 3x - 6$

T. $-2x^2 - 1$

E. $-13x^2 - 2x + 24$

L. $-x^2 - x + 7$

W. $5x^2 + 3x - 12$

9	6	3	8	4	2	1	5	7

"Who wrote the book 'I Love Fractions'?"

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $x^2 \bullet x^4$
2. $x^5 \bullet x^6$
3. $(x^4)(x^3)(x^7)$
4. $(x^8)(x)(x^3)$
5. $(4x^3)(6x^7)$
6. $-2x(3x^{11})(5x^2)$
7. $(3x^2y)(-8x^3y^6)$
8. $(-2x^3y^9)(4y)(-3x^5)$
9. $(7x^4y)(-x^2y^2)(2xy)$
10. $(-2x)(-x^3y^3)(-7y^6)$
11. $(5x^2y)(x^2y^4)(-2xy^3)(3x^4y)$

L. $-14x^4y^9$

T. $24x^{10}$

A. $-14x^7y^4$

T. x^9

G. $12x^{13}$

N. x^{14}

R. x^{11}

J. $24x^7y^3$

I. $-24x^5y^7$

S x^6

P. $30x^8$

E. $-30x^{14}$

D. $-30x^9y^9$

X. $-14x^2y^8$

O. x^{12}

W. x^{20}

M. $24x^8y^{10}$

10	4	7	1	11	6	3	4	8	7	3	9	5	4	2

Finish the sentence: "No news is ....."

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $(x^3)^5$
2. $(x^4)^7$
3. $(x^2y^3)^4$
4. $(-2x^5y)^3$
5. $(x^3y^2)^3(xy^3)$
6. $(xy^5)^2(-x^4y^4)^4$
7. $(x^3)^6(x^7y^4)^2(x^3y)$
8. $(-xy)^3(2x^2y)^2$
9. $(3x^2y^4)^3(4xy^5)^2$
10. $(-2x^5y^2)^5(-3xy^7)^2(-x^4y)$

T. $-4xy^5$

P. $-4x^7y^5$

O. $-8x^{15}y^3$

W. $144x^6y^{14}$

E. x^{15}

M. $288x^{31}y^{25}$

L. $x^{10}y^9$

A. x^{13}

S. x^{28}

F. x^8y^4

B. $432x^8y^{22}$

I. $x^{35}y^9$

N. $8x^{15}y^6$

S. $x^{18}y^{26}$

D. x^5y^5

I. x^8y^{12}

7	10	8	4	2	6	3	9	5	1

Finish the sentence: "Two's company, three's ....."

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $x(3x + 7)$

2. $3x(6x - 4)$

3. $-5x(x - 5)$

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

5. $6x(x^2 - 3x + 1)$

6. $-x(7x^2 - 5x + 8)$

7. $xy(2x - 3y - 4)$

8. $-2xy(5x^2 + 6xy - y^2)$

9. $3x^2y(8xy - 5x - 6)$

10. $-5xy^2(2x^2y^2 - 3xy + y)$

K. $24x^3y^2 - 15x^3y - 18x^2y$

A. $3x^2 + 8x$

E. $3x^2 + 7x$

S. $-10x^3y - 12x^2y^2 + 2xy^3$

N. $18x^2 - 6x$

E. $18x^2 - 12x$

O. $5x^2 + 25$

R. $-5x^2 + 25x$

M. $-10x^3y^4 + 15x^2y^3 - 5xy^3$

U. $2x^2y - 3xy^2 - 4xy$

F. $-10x^3y^4 + 5x^2y^3 - 3xy^3$

S. $-12x^3 - 8x^2$

C. $6x^3 - 12x^2 + 5$

E. $-7x^3 + 5x^2 - 8x$

T. $6x^3 - 18x^2 + 6x$

H. $-12x^2 + 4x$

Y. $12x^3y^2 - 15x^2y - 18x^2y$

10	7	4	9	1	5	6	2	3	8

"Who designed Noah's ark?"

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $(x + 2)(x - 7)$
2. $(x - 3)(x - 5)$
3. $(2x - 1)(3x + 2)$
4. $(3x + 4)(3x - 5)$
5. $(6x - 7)(8 - x)$
6. $(2x^2 - x)(3x + 1)$
7. $(5x + 7x^2)(6x - 4)$
8. $(x + 3)(x^2 - 2x + 1)$
9. $(x - 5)(3x^2 + 4x - 6)$
10. $(2x - 3)(-x^2 + 7x - 3)$

I. $3x^3 - 11x^2 - 26x + 30$

F. $21x^3 + 2x^2 - 20x$

T. $6x^3 - x^2 - x$

C. $9x^2 - 3x - 20$

S. $x^2 - 6x + 15$

N. $x^3 + x^2 - 5x + 3$

T. $x^2 - 5x - 14$

D. $9x^2 - 10x - 20$

A. $-6x^2 + 55x - 56$

K. $-2x^3 + 17x^2 - 27x + 9$

U. $6x^3 - 5x^2 - x$

E. $6x^2 + x - 2$

L. $2x^3 + x^2 - 4x + 1$

A. $x^2 - 8x + 15$

R. $42x^3 + 2x^2 - 20x$

B. $3x^3 - 11x^2 - 12x + 6$

Y. $-6x^2 + 5x - 56$

5	8	2	7	10	9	6	3	4	1

"Who was the first underwater spy?"

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $\frac{x^8}{x^3}$

2. $\frac{x^{15}}{x^9}$

3. $\frac{-4x^5}{2x}$

4. $\frac{3x^7}{6x^3}$

5. $\frac{x^2}{x^5}$

6. $\frac{15x}{3x^3}$

7. $\frac{x^5y^3}{x^3y}$

8. $\frac{-6x^{10}y^7}{3x^6y^6}$

9. $\frac{7x^3y^2}{14x^5y^2}$

S. x^2y^2

I. $2x^3$

A. $\frac{1}{x^3}$

F. x^4

D. x^5

J. $\frac{1}{2x^2}$

E. x^6

U. $\frac{1}{2xy}$

O. $\frac{x^4}{2}$

V. $5x^4$

P. $-2x^4y$

M. $-2x^4$

N. $\frac{5}{x^2}$

B. $\frac{x^2}{y^3}$

9	5	3	2	7	8	4	6	1

"What do you call an American drawing?"

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $\frac{4x + 8}{2}$

2. $\frac{18x - 6}{6}$

3. $\frac{24x^3 + 28x^5}{4x^2}$

4. $\frac{40x^2y - 36xy^2}{4xy}$

5. $\frac{16x^4 - 12x^2 - 4x}{4x}$

6. $\frac{30x^4y^3 - 40x^2y^2 - 14xy}{2xy}$

7. $\frac{15x^3 - 27x^2 + 9x}{-3x}$

8. $\frac{x^5y^3 - 2x^4y^2 + x^3y}{-xy}$

D. $10x - 9y$

A. $15x^3y^2 - 20xy - 7$

O. $2x + 4$

Y. $-x^4y^2 + 2x^3y - x^2$

U. $4x^3 - 3x - 4$

R. $15x^3y^2 - 2xy - 9$

E. $4x^3 - 3x - 1$

N. $3x - 1$

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

K. $-5x^2 + 9x - 3$

T. $-x^4y^2 + 2x^2y^2 - x$

M. $10x - 3$

L. $6x + 7x^3$

C. $-7x^2 + 6x + 9$

B. 0

W. $x^4y^6 - x^3y^2 + xy$

8	6	2	7	5	5	4	1	1	4	3	5

"Where does a cow go on vacation?"

Factor the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $4x + 6$
2. $9x - 3$
3. $xy - 7x$
4. $6x^2 - 3x$
5. $6x^2 - 4x - 14$
6. $-16x + 12$
7. $18x^2 + 27x - 36$
8. $-5x^3 + 25x^2 - 5x$
9. $28x^5 - 35x^4 - 14x^3$
10. $-13x^2 + 7x - 3$

L. $2(x + 3)$

R. $2(3x^2 - 2x - 7)$

I. $3x(2x - 1)$

D. $3(x - 3)$

P. $x(y - 6)$

O. $-4(4x - 3)$

C. $-(13x^2 - 7x + 3)$

W. $-5x(x^2 - 5x + 1)$

G. $3x(x + 2)$

F. $7x^3(4x^2 - 5x - 2)$

O. $3(3x - 1)$

I. $2(2x + 3)$

B. $-4(x + 3)$

N. $x(y - 7)$

A. $9(2x^2 + 3x - 4)$

E. $2(x^2 - x - 6)$

U. $-x(10x^2 - 7x + 3)$

10	6	8	4	9	2	5	3	1	7

"How does a vampire like his food served?"

Factor the following expressions. Watch out for GCFs. If the expression can't be factored, then write "prime." The answer to each problem will match a letter that will allow you to figure out the joke.

1. $x^2 - 16$
2. $9x^2 - 121$
3. $12x^2 - 27$
4. $x^3 - 81x$
5. $4x^2 + 1$
6. $2x^2 - 50$
7. $x^2 - z^2$
8. $x^2y^2 - z^2$
9. $x^4 - 169$

A. $(x - y)(x + y)$

C. $(x - z)(x + z)$

N. $(x - 8)(x + 8)$

Z. $(x - 4)(x + 4)$

I. Prime

O. $(4x - 3)(4x + 3)$

T. $(3x - 11)(3x + 11)$

E. $x(x - 9)(x + 9)$

H. $(xyz - 1)(xyz + 1)$

B. $(x^2 - 13)(x^2 + 13)$

S. $3(2x - 3)(2x + 3)$

P. $(xy - z)(xy + z)$

R. $(x - 5)(x + 10)$

D. $2(x - 5)(x + 5)$

V. $(2x - 13)(2x + 13)$

9	5	2	4		3	5	1	4	6		8	5	4	7	4	3	

"What is a cow's favorite school subject?"

Factor the following expressions. Watch out for GCFs.
The answer to each problem will match a letter that will allow you to figure out the joke.

1. $x^2 + 6x + 5$
2. $x^2 - 9x + 14$
3. $x^2 - 26x + 48$
4. $x^2 + 17x + 30$
5. $2x^2 + 6x + 4$
6. $-x^2 + 10x - 16$
7. $4x^3 - 36x^2 + 32x$
8. $-3x^2 - 57x - 102$

U. $(x + 15)(x + 2)$

C. $-3(x + 17)(x + 2)$

R. $(x + 2)(x + 3)$

O. $2(x + 1)(x + 2)$

T. $(x + 30)(x + 1)$

S. $(x - 2)(x - 7)$

N. $(x + 2)(x + 5)$

C. $-(x - 8)(x - 2)$

W. $(x - 24)(x - 2)$

M. $(x - 1)(x - 3)$

L. $4x(x - 8)(x - 1)$

U. $(x + 5)(x + 1)$

B. $(x - 24)(x - 3)$

F. $(x - 14)(x - 7)$

A. $-3(x - 12)(x - 2)$

8	5	3	6	1	7	4	2

Joke #34

"What do you call a bunch of chickens playing hide-and-seek?"

Factor the following expressions. Watch out for GCFs.
The answer to each problem will match a letter that will allow you to figure out the joke.

1. $x^2 - 3x - 10$
2. $x^2 + 3x - 18$
3. $x^2 - 19x - 42$
4. $x^2 + 5x - 50$
5. $-x^2 - 7x + 8$
6. $2x^2 + 6x - 56$
7. $3x^2 - 24x - 60$
8. $4x^3 - 4x^2 - 8x$

O. $(x + 10)(x - 5)$

R. $-(x + 4)(x - 2)$

L. $2(x + 7)(x - 4)$

E. $4(x + 2)(x - 1)$

S. $2(x + 14)(x - 2)$

F. $4x(x - 2)(x + 1)$

W. $(x + 6)(x - 3)$

Y. $-(x + 8)(x - 1)$

T. $3(x + 5)(x - 4)$

A. $(x - 5)(x + 2)$

L. $(x - 21)(x + 2)$

H. $(x + 9)(x - 2)$

P. $3(x - 10)(x + 2)$

8	4	2	6	7	3	1	5

"What kind of birds do you usually find locked up?"

Factor the following expressions. Watch out for GCFs.
The answer to each problem will match a letter that will allow you to figure out the joke.

1. $5x^2 - 125$

2. $3x^2 + 18x - 48$

3. $x^4 + 13x^3 + 30x^2$

4. $x^2 - xy - 12y^2$

5. $4x^2 - 36$

6. $7x^2 - 98x + 343$

7. $2x^3 + 6x^2 - 108x$

8. $-4x^2 + 196$

9. $x^4y - 14x^3y^2 + 48x^2y^3$

V. $2(x - 18)(x + 3)$

I. $(x - 4y)(x + 3y)$

H. $x(x + 5)(x + 6)$

R. $x^2(x + 3)(x + 10)$

B. $x^2y(x - 6y)(x - 8y)$

E. $4(x + 2)(x - 7)$

S. $5(x - 5)(x + 5)$

D. $2x(x - 6)(x + 9)$

C. $3(x + 4)(x - 4)$

T. $(x - 2y)(x + 6y)$

L. $7(x - 7)^2$

A. $4(x - 3)(x + 3)$

J. $-4(x - 7)(x + 7)$

W. $7(x - 9)(x + 2)$

I. $3(x - 2)(x + 8)$

P. $2(x + 4)(x + 13)$

8	5	2	6		9	4	3	7	1

"How do rabbits travel?"

Factor the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $15x^2 + 8x + 1$
2. $2x^2 + 15 + 7$
3. $3x^2 + x - 2$
4. $4x^2 - 21x + 5$
5. $6x^2 - 17x + 5$
6. $14x^2 + x - 4$
7. $10x^2 - x - 21$
8. $3x^2 + 16x - 44$
9. $35x^2 - 59x - 48$

B. $(2x - 3)(5x + 7)$

W. $(3x - 1)(x - 2)$

M. $(2x + 7)(x - 1)$

E. $(2x - 1)(7x + 4)$

A. $(3x - 2)(x + 1)$

N. $(5x + 1)(3x + 1)$

U. $(2x - 5)(2x - 1)$

G. $(14x + 1)(x - 4)$

L. $(2x + 1)(x + 7)$

H. $(5x + 3)(7x - 16)$

T. $(10x - 1)(x + 21)$

R. $(3x - 1)(2x - 5)$

P. $(3x + 22)(x - 2)$

X. $(7x - 9)(5x + 2)$

Y. $(4x - 1)(x - 5)$

Q. $(6x - 5)(x - 1)$

7	4	9	3	5	6	8	2	3	1	6

"What are the small rivers that run into the Nile called?"

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $\frac{3x + 6}{x + 2}$

2. $\frac{x^2 - 9}{x + 3}$

3. $\frac{x^2 + 2x - 15}{x - 3}$

4. $\frac{2x^2 - 6x - 56}{2x - 14}$

5. $\frac{6x^2 + 13x - 5}{6x - 2}$

6. $\frac{2x^2 - 11x - 6}{x^2 - 36}$

7. $\frac{4x^2 + 11x - 3}{x^2 - 3x - 18}$

8. $\frac{6x^2 + 36x + 54}{2x^2 - 18}$

U. $x + 5$

V. $\frac{2x + 1}{x + 6}$

M. 2

E. $x - 3$

D. $\frac{2x - 1}{x - 6}$

S. 3

N. $\frac{4x - 1}{x - 6}$

I. $x + 4$

A. $2x - 5$

J. $\frac{3(x + 3)}{x - 3}$

T. $x - 4$

L. $\frac{2x + 5}{2}$

D. $\frac{x - 4}{x + 6}$

8	3	6	2		7	4	5	2	1

"What is a polygon?"

Simplify the following expressions. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $\frac{x^2}{y} \cdot \frac{3y^2}{x^5}$

2. $\frac{4x^6}{3y^7} \cdot \frac{9y^2}{2x^3}$

3. $\frac{2x}{x+4} \cdot \frac{3x+12}{10x^3}$

4. $\frac{8-x}{6x-18} \cdot \frac{3x-9}{2x-16}$

5. $\frac{x^2-2x}{x^2-1} \cdot \frac{4x-4}{x^2-4}$

6. $\frac{x^2+5x-14}{3x^3+6x^2} \cdot \frac{2x^2+6x}{x^2+10x+21}$

7. $\frac{12x^4}{2x^2+19x-10} \cdot \frac{4x^2-1}{6x^2}$

8. $\frac{4x^2-27x+18}{(x-6)^4} \cdot \frac{x^2-2x-24}{4x^2+13x-12}$

D. $\frac{2x^2(2x+1)}{x+10}$

O. $\frac{3}{5x^2}$

U. $\frac{3}{x^2}$

T. $\frac{-1}{4}$

A. $\frac{4x}{(x+1)(x+2)}$

D. $\frac{3y}{x^3}$

P. $\frac{1}{(x-6)^2}$

M. $\frac{2(x-2)}{x(x+3)}$

R. $\frac{2(x-2)}{3x(x+2)}$

E. $\frac{6x^3}{y^5}$

W. $\frac{x}{(x+1)(x-2)}$

5		7	2	5	1		8	5	6	6	3	4

"Did you hear about the dyslexic Satan worshipper?"

Solve for x. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $(x - 4)(x + 8) = 0$
2. $(x + 3)(x - 5) = 0$
3. $x(x + 1) = 0$
4. $2(x + 7)(x - 7) = 0$
5. $(x + 1)(x - 2)(x - 4) = 0$
6. $4x(x + 6)(x - 3) = 0$
7. $x^2 + 6x - 7 = 0$
8. $x^2 - 25 = 0$
9. $x^2 + 9x + 18 = 0$
10. $x^2 + 8x - 20 = 0$
11. $x^3 - x = 0$
12. $-3x^2 + 18x - 24 = 0$

S. {2 , 4}

E. {–3 , 5}

T. {0 , –1}

Y. {1 , –3 , 2}

D. {0 , –6 , 3}

R. {3 , 5}

O. {4 , –8}

A. $\{ \pm 5 \}$

G. {1 , 7}

I. {–3 , –6}

U. {2, –10}

H. {1, –7}

M. $\{ \pm 2 \}$

S. $\{0, \pm 1\}$

N. {-1 , 2 , 4}

L. $\{ \pm 7\}$

7	2	11	1	4	6	7	9	11		
12	1	10	4	3	1	12	8	5	3	8

"What Disney movie is about a tall-tale-telling royal?"

Write the following equations into slope-intercept form: $y = mx + b$.
The answer to each problem will match a letter that will allow you to figure out the joke.

1. $3y = 6x - 9$
2. $4y = 2x + 12$
3. $-5y = 3x - 25$
4. $7x + y = 3$
5. $4x - 2y = 3$
6. $5x + 6y = 4$
7. $-2x + 3y = 18$
8. $6x - 20 = -2y$

I. $y = -7x + 3$

S. $y = \frac{1}{5}x + 5$

N. $y = 2x - 3$

R. $y = 2x + 6$

G. $y = \frac{-5}{6}x + \frac{2}{3}$

T. $y = 2x + 3$

K. $y = \frac{2}{3}x + 6$

A. $y = -3x + 7$

I. $y = \frac{-3}{5}x + 5$

E. $y = \frac{-1}{6}x + \frac{1}{3}$

N. $y = \frac{1}{2}x + 3$

O. $y = -7x + 5$

L. $y = -3x + 10$

Y. $y = 2x - \frac{3}{2}$

8	5	3	1	7	4	2	6

"What do you get when you cross a bunny and some cheese?"

Find the slope between the following set of points.
The answer to each problem will match a letter that will allow you to figure out the joke.

1. (4,7) and (6,11)
2. (2,4) and (3,–2)
3. (–5,–8) and (–2,4)
4. (–6,5) and (0,5)
5. (3,–12) and (–8,–7)
6. (7,0) and (–1,–4)
7. (–9,3) and (–9,–7)
8. (2,–15) and (20,–3)
9. (–1,–1) and (15,–4)
10. (34,–12) and (56,–23)

H. $\frac{-5}{11}$

S. $\frac{1}{4}$

T. 4

A. 0

V. $\frac{-1}{2}$

O. –5

R. $\frac{1}{2}$

L. 2

I. –6

T. Undefined

B. $\frac{2}{3}$

E. $\frac{-3}{16}$

N. $\frac{4}{3}$

3	5	9		10	9	1	10	9	9	7	4

6	4	8	8	2	7

Finish the sentence: "Don't bite the hand that ....."

Write an equation for a line given the slope and one point on that line.
The answer to each problem will match a letter that will allow you to figure out the joke.

1. $m = 2$ and the point (3,–7)
2. $m = 5$ and the point (–2,5)
3. $m = -3$ and the point (–4,6)
4. $m = \frac{1}{3}$ and the point (9,–7)
5. $m = \frac{5}{2}$ and the point (–4,–1)
6. $m = \frac{-2}{7}$ and the point (7,8)
7. $m = 0$ and the point (3,–3)
8. $m =$ undefined and the point (–5,11)
9. $m = \frac{1}{4}$ and the point (2,3)
10. $m = \frac{-1}{3}$ and the point (5,–4)

N. $y = -3x + 1$

O. $y = \frac{1}{3}x - 10$

L. $y = -3$

M. $y = 2x - 7$

I. $y = -3x - 6$

S. $y = \frac{-2}{7}x + 10$

D. $y = \frac{-1}{3}x - \frac{7}{3}$

C. $y = 6$

R. $y = \frac{5}{2}x + 9$

T. $y = 2x - 13$

Y. $x = -5$

E. $y = 5x - 8$

K. $y = \frac{1}{4}x + \frac{5}{2}$

O. $y = 5x + 15$

U. $y = \frac{1}{3}x + 3$

7	4	2	9	6	10	3	5	1	8

"What is the name of Sitting Bull's daughter?"

Write an equation for a line given two points on that line.
The answer to each problem will match a letter that will allow you to figure out the joke.

1. (4,3) and (5,6)
2. (–6,2) and (–4,–1)
3. (–9,5) and (–4,–5)
4. (13,7) and (20,–7)
5. (–1,3) and (–4,–6)
6. (–4,–12) and (0,–8)
7. (–1,1) and (3,–2)
8. (–7,11) and (–1,–1)

A. $y = -2x + 5$

I. $y = \frac{-3}{2}x - 7$

T. $y = 3x + 1$

F. $y = -2x + 33$

M. $y = -2x - 3$

D. $y = x + 2$

S. $y = 3x + 6$

H. $y = 3x - 9$

R. $y = \frac{2}{3}x - 2$

I. $y = x - 8$

C. $y = \frac{-3}{4}x + \frac{1}{4}$

W. $y = -4x - 3$

E. $y = -2x - 13$

V. $y = \frac{-3}{4}x + 4$

J. $y = -2x - 15$

__ __ __ __ __ __ __ __

8 2 5 7 1 6 3 4

Answers to the Algebra Joke Worksheets

Joke #1: Crib Notes
Joke #2: Independent
Joke #3: Dreadlocks
Joke #4: Scholarship
Joke #5: Eggplants
Joke #6: An Udder Failure
Joke #7: They Have No Point
Joke #8: Microscope
Joke #9: Owl-Gebra
Joke #10: Alligators
Joke #11: Avoidable
Joke #12: Sherbet
Joke #13: By Norse Code
Joke #14: A Brick Layer
Joke #15: An Eskimoo
Joke #16: A Box of Quackers
Joke #17: Dick Tater
Joke #18: The Three Arrrs
Joke #19: Ivan Alibi
Joke #20: Wayne Drops
Joke #21: Russel D. Bag
Joke #22: Sue Flay
Joke #23: Plastic Surgery
Joke #24: They Take The Psycho Path
Joke #25: Pollution
Joke #26: Lois Denominator
Joke #27: Impossible
Joke #28: Musketeers
Joke #29: An Ark-itect
Joke #30: James Pond
Joke #31: Yankee Doodle
Joke #32: Cowifornia
Joke #33: Bite Sized Pieces
Joke #34: Cowculus
Joke #35: Fowl Play
Joke #36: Jail Birds
Joke #37: By Hareplane
Joke #38: A Thirst Aid Kit
Joke #39: A Tadpole
Joke #40: Hop-Scotch
Joke #41: Ghoul-oshes
Joke #42: Juve-niles
Joke #43: Square Meals
Joke #44: Sir Circumference
Joke #45: A Dead Parrot
Joke #46: Mucus
Joke #47: A Cowculator
Joke #48: Broadband
Joke #49: A Trumpet
Joke #50: He Sold His Soul To Santa
Joke #51: Sue Perman
Joke #52: Disneyland
Joke #53: A Yolk Book
Joke #54: Sandy Aygo
Joke #55: Vitamin
Joke #56: Winnie The Phew
Joke #57: Lyin' King
Joke #58: The Velveeta Rabbit
Joke #59: Looks Dirty
Joke #60: Mischief
Joke #61: A Flat Rate
Joke #62: Dumb Beau
Joke #63: Exit Delayed
Joke #64: Absentee
Joke #65: Tulips
Joke #66: Detergents
Joke #67: Bird of Prey
Joke #68: Screwdriver
Joke #69: Baking Soda
Joke #70: Yardstick
Joke #71: A Pelican
Joke #72: In A Dictionary