

Table of Contents

1. Order of Operations	
a. Multiplication, Division, Addition, and Subtraction.....	1
b. With Parenthesis	2
c. Evaluating: without parenthesis.....	3
d. Evaluating: with parenthesis.....	4
2. Negatives	
a. Negative terms in parenthesis	5
b. Adding Integers.....	6
c. Multiplication and Division	7
d. Exponents	8
e. Simplifying Integers.....	9
3. Simplifying with Variables	
a. Addition and Subtraction	10
b. Distributing	11
c. Distributing and Collecting Like Terms.....	12
4. Solving Linear Equations	
a. $x + a = b$ form	13
b. $ax = b$ form (answers are integers).....	14
c. $ax = b$ form (possible fraction answers)	15
d. $ax + b = c$ form (answers are integers)	16
e. $ax + b = c$ form (possible fraction answers)	17
f. $ax + b = c$ form where a, b, and c can be fractions	18
g. Collecting like terms.....	19
h. Variables on both sides and Collecting like terms.....	20
i. With parenthesis.....	21
j. With parenthesis and variables on both sides	22
k. Proportions	23
5. Monomials and Polynomials	
a. Monomials: Addition and Subtraction	24
b. Polynomials: Addition and Subtraction	25
c. Monomials: Multiplication	26
d. Monomials: Raising to a higher power.....	27
e. Polynomials: Multiplying by a monomial.....	28
f. Polynomials: Multiplying by a polynomial	29
g. Monomials: Dividing by monomials	30
h. Polynomials: Dividing by monomials.....	31

6. Factoring	
a. GCF (greatest common factor).....	32
b. Difference of squares.....	33
c. $x^2 \pm bx + c$ form.....	34
d. $x^2 \pm bx - c$ form.....	35
e. GCF, difference of square, and $x^2 \pm bx \pm c$ form.....	36
f. $ax^2 \pm bx \pm c$ form.....	37
g. $ax^2 \pm bx \pm c$ form with GCF.....	38
h. Grouping (4 terms).....	39
i. Factoring completely without grouping.....	40
j. Factoring completely with grouping.....	41
7. Factoring to Help Simplify Fractions and Expressions	
a. Polynomials: simplifying fractions.....	42
b. Polynomials: simplifying fractions and dealing with (b - x).....	43
c. Polynomials: simplifying monomial and polynomial products.....	44
d. Multiplying polynomial fractions.....	45
e. Multiplying and dividing polynomial fractions.....	46
f. Adding and subtracting fractions - has a common denominator.....	47
g. Adding and subtracting fractions - common denominator needed.....	48
h. Adding and subtracting fractions - factoring might be needed.....	49
8. Solving Quadratic Equations and Others	
a. Solve by factoring.....	50
b. Solve by factoring - might have fraction answers.....	51
c. Tougher solving by factoring - might have fraction answers.....	52
d. Quadratic Formula.....	53
e. Completing the Square.....	54
f. Solving with unknowns in the denominator.....	55
g. Solving with unknowns in the denominator - factoring required.....	56
9. Linear Equations	
a. Rewriting equations into slope - intercept form.....	57
b. Finding slope.....	58
c. Writing equations given the slope and a point.....	59
d. Writing equations given two points.....	60
10. Solving Systems	
a. Graphing method.....	61
b. Substitution method.....	62
c. Addition Method - might have to multiply by -1.....	63
d. Addition Method - equations in standard form.....	64
e. Addition Method - equations not in standard form.....	65

11. Inequalities	
a. One step inequalities	66
b. Two or more step inequalities.....	67
12. Radicals	
a. Simplifying radicals	68
b. Multiplying radicals	69
c. Adding and subtracting radicals.....	70
d. Rationalizing radicals	71
e. Solving Equations with radicals.....	72
13. Graph Paper	73
14. Answers to the Joke Worksheets	74

"What do mechanics charge to fix tires?"

Solve the systems of equations by graphing.

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

1. $y = -3$
 $y = -2x + 1$

A. (2,-2)

D. (3,3)

2. $y = 2x + 7$
 $x = -3$

T. (-3,1)

I. (4,-2)

3. $y = x + 3$
 $y = 2x$

R. (2,1)

E. (1,1)

4. $y = -x + 2$
 $y = 3x - 2$

N. (2,0)

W. (0,0)

5. $y = x - 4$
 $y = -x$

F. (5,1)

A. (2,-3)

6. $3x + 2y = 6$
 $x + 3y = 9$

M. (2,-5)

L (0,3)

7. $2x - 5y = -1$
 $3x - 4y = 2$

J. (5,5)

T. (3,6)

8. $-2x + y = -9$
 $x - 3y = 2$

Y. (-8,4)

1 8 6 5 3 7 5 2 4