Grade 8 Unit 8 Week 7

Parents: Please help your child choose the most appropriate assignment(s) to complete each day. When the day's assignment is done, students finish the two reflection statements on this page.

Please note Extra Practice activities are on-level for the grade level. Re-Engage activities give students additional support.

Special Education students should use the Re-Engage lessons as shown in the weekly plans.

		Monday	Tuesday	Wednesday	Thursday	Friday
	Topic	Solve system of equations using the graphing method.	Solve system of equations using the substitution method.	Solve system of equations using the elimination method involving addition and subtraction.	Solve system of equations using the elimination method involving multiplication and division.	Demonstrate understanding of system of equations and interpret the solution.
	nt	Unit 8 Lesson 3	Unit 8 Lesson 5	Unit 8 Lesson 7	Unit 8 Lesson 8	Unit 8 Lesson 11
	Assignment	Re-Engage A Re-Engage B Extra Practice	Re-Engage A Re-Engage B Re-Engage C Extra Practice	Re-Engage A Re-Engage B Extra Practice	Re-Engage Extra Practice	Math Task
	Video Iink	Unit 8 Lesson 2 Unit 8 Lesson 3 Student Support Video	Unit 8 Lesson 4 Unit 8 Lesson 5 Student Support Video	Unit 8 Lesson 7 Student Support Video	Unit 8 Lesson 8 Student Support Video	(no video for Math Tasks)
ī	Fractice	Integers Addition Fluency C	Integers Subtraction Fluency C	Integers Multiplication Fluency C	Integers Division Fluency C	Fraction-Decimal Conversion Fluency C
	n	One thing I was successful with is	One thing I was successful with is	One thing I was successful with is	One thing I was successful with is	One thing I was successful with is
	Reflection	One thing I need more help with is	One thing I need more help with is	One thing I need more help with is	One thing I need more help with is	One thing I need more help with is

Find this packet on swunmath.com. Click on the hyperlinks to jump to the lesson videos.



Date:

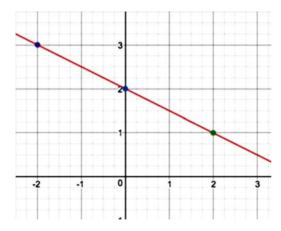
Model

Graph a Linear Equation

$$\mathbf{y} = -\frac{1}{2}\mathbf{x} + \mathbf{2}$$

$$\uparrow$$
y-intercept
slope

- 1. Plot the y-intercept: (0, 2)
- 2. Use the slope to move from the y-intercept to the next point.
 - The numerator value moves up (or down), and the denominator value moves over to the right. Plot this point.
 - Slope is $-\frac{1}{2}$
 - Move down 1 (because it is negative) and over 2.
- 3. Connect the two points to form a straight line.



Unit 8 Lesson 2-3a: Graph an Equation



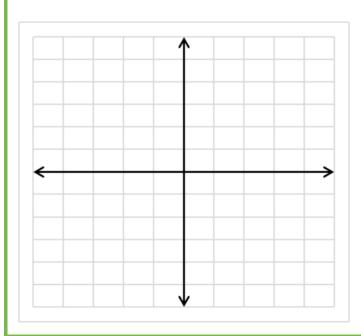
Name:		

Date:

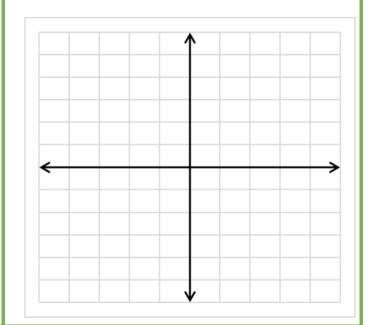
Structured Guided Practice

Directions: Graph the equation.

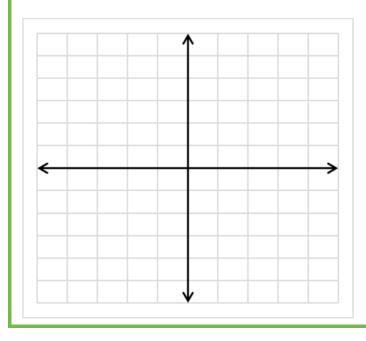
1.
$$y = -\frac{3}{4}x + 4$$



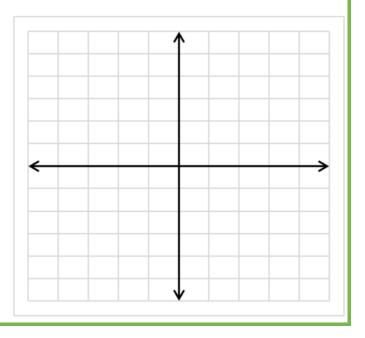
2.
$$y = -\frac{5}{6}x + 1$$



3.
$$y = \frac{1}{4}x - 2$$



4.
$$\mathbf{y} = \frac{4}{5}\mathbf{x} - 3$$



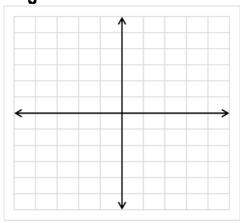
Unit 8 Lesson 2-3a: Graph an Equation



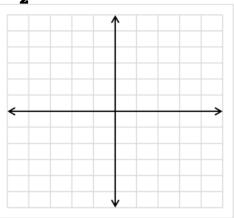
Student Practice

Directions: Graph the equation.

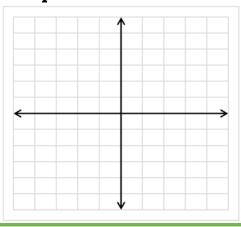
1. $y = -\frac{2}{3}x + 3$



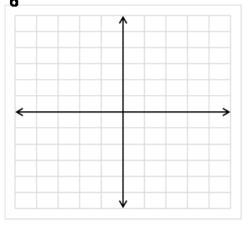
2. $y = -\frac{1}{2}x + 4$



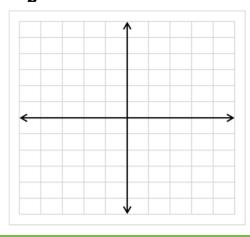
3.
$$y = -\frac{3}{4}x + 5$$



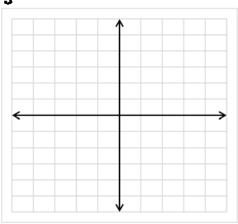
4. $y = \frac{5}{6}x - 1$



5.
$$y = \frac{1}{2}x - 3$$



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





Date:

Model

Solve for y

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

- 1. Use an inverse operation to isolate the y.
- 2. Since 3 is multiplied by y, the inverse will be to divide by 3.

*Notice that dividing by 3 and multiplying by $\frac{1}{3}$ are the same operation.

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

Slope-Intercept Form:

$$\mathbf{y} = -\frac{2}{3}\mathbf{x} + \frac{1}{3}$$

Structured Guided Practice

Directions: Solve for y to get slope-intercept form.

1.
$$5y = -4x + 2$$

2.
$$4y = -3x + 1$$

3.
$$6y = 5x - 7$$

4.
$$3y = 6x - 5$$

Unit 8 Lesson 2-3b: Convert to Slope-Intercept Form



Student Practice

Directions: Solve for y to get slope-intercept form.

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

2.
$$4y = -2x + 1$$

3.
$$5y = -3x + 1$$

4.
$$4y = 4x - 9$$

5.
$$3y = 2x - 3$$

6.
$$4y = 8x - 5$$

Unit 8 · Lessons 1-3: Graphing Method

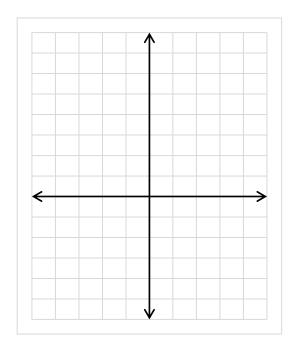
Name: _____

Date:

Directions: Graph to determine the solution. Change to slope-intercept form, if needed.

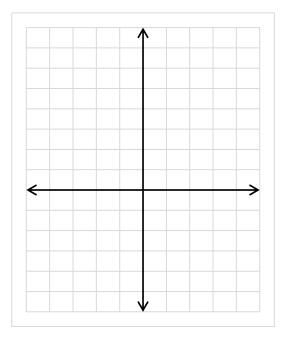
1.
$$y = 2x - 1$$

 $x + y = 2$



2.
$$y = 2x$$

 $y = 3x - 1$

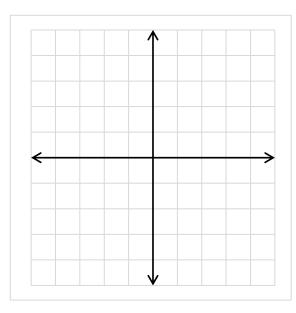


Unit 8 · Lessons 1-3: Graphing Method

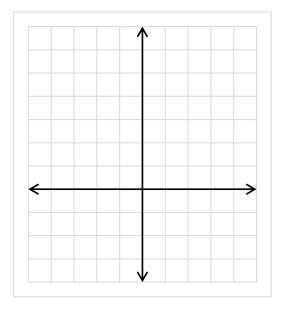
Name:

Date: _____

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



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



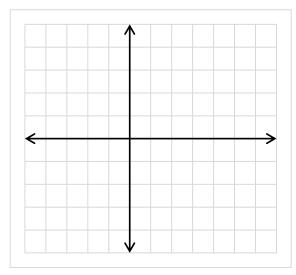
Unit 8 · Lessons 1-3: Graphing Method

Name:

Date:

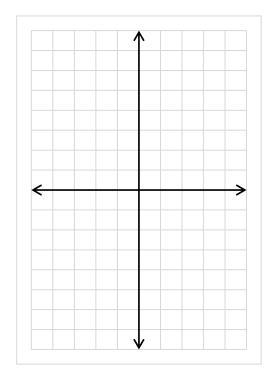
5.
$$2x = 4 + y$$

 $x - 2y = 2$



6.
$$y = -3x + 3$$

 $3x - 2y = 0$





Date:

Model

Solve for x

$$2y + 3x = 4$$

Use inverse operations to isolate the x to one side.

1. Subtract 2y from both sides.

$$2y + 3x = 4$$

$$-2y = -2y$$

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

2. Divide both sides by 3.

$$\frac{3x}{3} = \frac{-2y + 4}{3}$$

3. Solve: $\mathbf{x} = -\frac{2}{3}\mathbf{y} + \frac{4}{3}$ or $\mathbf{x} = -\frac{2}{3}\mathbf{y} + 1\frac{1}{3}$

Structured Guided Practice

Directions: Solve for x.

1.
$$4y + 3x = 4$$

2.
$$3y + 5x = 6$$

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

4.
$$5y - 8x = -6$$

Unit 8 Lesson 4-5a: Solve for a Single Variable



Student Practice

Directions: Solve for x.

1.
$$3y + 7x = 5$$

2.
$$6y + 5x = 7$$

3.
$$5y + 8x = 6$$

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

5.
$$5y - 5x = -10$$

6.
$$5y - 6x = -12$$



Date:

Model

Substitute y to Solve for x

$$2y + 3x = 4$$

$$y = 5$$

1. Replace the y in the initial equation.

$$2y + 3x = 4$$

$$2(5) + 3x = 4$$

$$10 + 3x = 4$$

$$3x = -6$$

2. Divide to isolate the x.

$$\frac{3x}{3} = \frac{-6}{3}$$

Solution is x = -2

Structured Guided Practice

1.
$$3y + 2x = 6$$

 $y = 4$

2.
$$4y + 5x = 2$$

 $y = 8$



Student Practice

Directions: Substitute and solve.

1.
$$5y + 2x = 7$$

 $y = 3$

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

 $y = 11$

3.
$$7y + 3x = 8$$

 $y = 2$

4.
$$7y + 2x = 8$$

 $y = 4$

5.
$$6y + 5x = 9$$

 $y = 4$

6.
$$2y + 7x = 4$$

 $y = 9$

Unit 8 Lesson 4-5c: Two-Step Equations



Name:		

Date:

Model

$$3y - 42 - y = -20$$

Combine the like terms.

$$3y - y - 42 = -20$$

$$2y - 42 = -20$$

Use inverse operations to isolate the variable.

$$2y - 42 = -20$$

$$2y = 22$$

Use inverse operations to solve.

$$\frac{2y}{2} = \frac{22}{2}$$

Solution: y = 11

Structured Guided Practice

1.
$$2y - 14 - 3y = -31$$

2.
$$4x - 21 - 2x = -17$$



Student Practice

Directions: Solve.

1.
$$4y - 23 - 3y = -34$$

2.
$$2y - 15 - 5y = -30$$

3.
$$7y - 16 - 11y = -32$$

4.
$$6y - 25 - 3y = -31$$

5.
$$8y - 36 - 10y = -14$$

6.
$$5y - 32 - 6y = -12$$

Unit 8 · Lessons 4-5: Substitution Method

Date:

Directions: Use substitution to solve each system of equations.

$$1. \quad x + 3y = 1$$
$$x + 2y = -5$$

2.
$$3x - y = -12$$

 $2x - 2y = 4$

3.
$$3x + 3y = -36$$

 $x - y = -4$

4.
$$x - 2y = -17$$

 $3x - y = 14$

5.
$$2x + 2y = 140$$

 $3x + 5y = 220$

6.
$$y = 2x + 5$$

 $y + x = -10$

Unit 8 Lesson 6-7a: Zero Pairs



Name:	

Date:

Model

Zero Pair

-4x

The opposite of -4x is 4x.

It is called a zero pair because when adding opposites, the solution is zero.

$$-4x + 4x = 0$$

-x	-x
-x	-x

Structured Guided Practice

Directions: State the opposite, making a zero pair.

Unit 8 Lesson 6-7a: Zero Pairs



Student Practice

Directions: State the opposite, making a zero pair.



Date:

Model

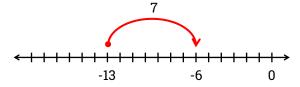
Subtracting Negatives

$$-13 - (-7)$$

Number Line:

- 1. Place the first term on the number line.
- 2. Subtract the second term.

Since subtracting means removing a negative value, it is the same as adding a positive value, so move to the <u>right</u> 7 places.



Equation:

$$-13 - (-7) = -13 + 7$$

Answer: -6

Structured Guided Practice

1.
$$-9 - (-7)$$



Student Practice

Directions: Subtract.

3.
$$-24 - (-25)$$

6.
$$-21 - (-32)$$

Unit 8 · Lessons 6-7: Elimination Method: Add & Subtract

Name: _____

Date: _____

Directions: Use the elimination method to find the solution set.

1.
$$-3x + 10y = -60$$

 $3x + 5y = 15$

2.
$$-7x + 13y = -8$$

 $15x - 13y = 32$

3.
$$-9x + 12y = 30$$

 $12y = 4x$

4.
$$-6x - 10y = 18$$

 $-10y = 4x + 2$

5.
$$14x - 8y = 60$$

 $-14x - 6y = -4$

6.
$$2x + 7y = 27$$

 $-9x = 7y - 48$

Unit 8 Lesson 8: Elimination Method with Multiplication



Name:	

Date:

Model

$$3x - 4y = -20$$
$$2x - 3y = 15$$

1. Find a common factor of either x or y.

Common multiple for x = 6Common multiple for y = -12

2. Eliminate one of the variables by multiplying to get the common multiple.

I choose to eliminate the x variable since it is the simplest common multiple.

3. Multiply 2 by the first equation and 3 by the second to create new equations.

(2)
$$(3x - 4y = -20)$$
 $6x - 8y = -40$

(3)
$$(2x - 3y = 15)$$
 $6x - 9y = 45$

Structured Guided Practice

Directions: Identify the variable to eliminate and multiply to create new equations.

1.
$$4x + 2y = -16$$

 $2x + 3y = 25$

2.
$$2x - 4y = -10$$

 $5x - 3y = 15$

Unit 8 Lesson 8: Elimination Method with Multiplication



Student Practice

Directions: Identify the variable to eliminate and multiply to create two new equations.

1.
$$5x - 6y = -11$$

 $2x - 2y = 9$

2.
$$7x - 4y = -14$$

 $2x - 3y = 10$

3.
$$3x - 4y = -12$$

 $2x - 3y = 21$

4.
$$4x - 2y = -14$$

 $2x - 3y = 24$

5.
$$5x - 4y = -16$$

 $2x - 3y = 8$

6.
$$6x - 2y = -20$$

 $2x - 3y = 15$

Unit 8 · Lesson 8: Elimination Method: Multiplication

Name:

Date:

Directions: Determine the solution for each system of equation.

1.
$$2x + 3y = 18$$

 $4x - 3y = -18$

$$2. 6x - 4y = 28
6x + 2y = 4$$

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

 $6x - 2y = -58$

4.
$$3x + 7y = 55$$

 $8x + 2y = 80$

5.
$$x + y = 2$$

 $10x + 4y = 20$

6.
$$5x - 11y = -51$$

 $7x - 3y = 3$

Math Task

Unit 8 · Lesson 11: Systems of Linear Equations

Name: _____

Directions: Solve.

What's the Score?

Collect 12 dimes and 12 buttons. For this game, you keep score by assigning points to the dimes and buttons. Dimes are worth 4 points. Buttons are worth 1 point. Let d represent the number of dimes and let b represent the number of buttons.

1. Choose a collection of 9 objects and calculate your score. There are many possibilities. Please list two different combinations.

2. Write and solve a system of equations to find the number of dimes and buttons needed to get a score of 24 using nine objects.

3. Set up a table tracking dimes and buttons. If 9 objects are used each time, keep track of how many buttons are used for 0, 1, 2, 3, 4, 5, 6 dimes. Did the table results agree with your solution to the system? Explain.

Solution: Buttons	9	8	7	6	5	4	3	The results do agree with the solution that was
Dimes	0	1	2	3	4	5	6	obtained by the system.
Points	9	12	15	18	21	24	27	

Integers: Addition Fluency C (70 items)

Name_____ Date____

-3 + 9 =	8 + -1 =	7 + -4 =	-6 + -3 =	-9 + 2 =	5 + -3 =	8 + -2 =
-4 + 9 =	-7 + 3 =	-4 + -5 =	-9 + -5 =	-3 + 3 =	-2 + -8 =	-4 + 2 =
-9 + -4 =	−7 + −2 =	-9 + 1 =	4 + -9 =	3 + -8 =	−3 + −5 =	-9 + 9 =
6 + -3 =	-2 + 7 =	-9 + -7 =	-4 + -6 =	-5 + 8 =	-8 + 6 =	-8 + 9 =
-6 + 8 =	-7 + 5 =	-6 + -6 =	4 + -7 =	-3 + 2 =	6 + -7 =	8 + -4 =
-6 + -2 =	-9 + 5 =	-8 + -3 =	-5 + 7 =	-4 + 7 =	-2 + -5 =	0 + 6 =
5 + -9 =	7 + -9 =	6 + -1 =	-4 + -8 =	-2 + 4 =	-8 + -9 =	4 + -4 =
-2 + -3 =	-8 + -4 =	-9 + 8 =	-6 + -4 =	-4 + -3 =	3 + -4 =	-5 + -5 =
−7 + −1 =	-7 + -7 =	-2 + 6 =	−7 + −8 =	-3 + -7 =	-9 + 6 =	-9 + 4 =
-2 + -2 =	7 + -6 =	-8 + 5 =	8 + -7 =	-5 + 6 =	-6 + -5 =	-5 + 4 =

Integers: Subtraction
Fluency C
(70 items)

Name_____ Date____

-77 =	-5 - 7 =	-9 - 6 =	0 - 6 =	-8 - 5 =	-6 - 9 =	-5 - 4 =
44 =	88 =	93 =	-78 =	81 =	-3 - 2 =	-43 =
88 =	84 =	-9 - 9 =	-75 =	-9 - 1 =	-8 - 6 =	-28 =
-5 - 6 =	-95 =	-2 - 2 =	61 =	-65 =	-89 =	74 =
-2 - 6 =	53 =	-9 - 4 =	82 =	27 =	-4 - 2 =	-36 =
-59 =	-25 =	63 =	-4 - 9 =	-5 - 8 =	-3 - 3 =	47 =
-66 =	-62 =	67 =	-29 =	-4 + -6 =	-2 - 4 =	-9 - 8 =
-48 =	34 =	−7 − −6 =	-83 =	-37 =	52 =	76 =
-35 =	-55 =	-97 =	79 =	-64 =	-6 - 8 =	-23 =
-2 - 7 =	-7 - 3 =	38 =	-9 - 2 =	39 =	-45 =	-94 =

Integers: Multiplication
Fluency C
(70 items)

Name______ Date_____

-3·-7 =	9 · -2 =	6 · -4 =	$-7 \cdot 4 =$	-4·-8 =	−6 · 7 =	-4 ⋅ -6 =
−5 · 9 =	-7·-2 =	-6·−6 =	-9·−7 =	−7·9 =	-3·-6 =	$-3\cdot 4 =$
4·-9 =	5·−8 =	9 · -6 =	2 · -7 =	2 · -4 =	−7 · 6 =	−8 · 1 =
2 · -2 =	6 · -9 =	5·−7 =	0 · -9 =	-6·−4 =	8 · -8 =	-7·-5 =
3 ⋅ −2 =	-4 · -3 =	-9·-4 =	5 · -6 =	7·−3 =	-3 ⋅ 8 =	−5 · 2 =
$-2\cdot -5 =$	$-6\cdot 3 =$	4·−2 =	−8 · 7 =	-5 · -5 =	-3·-5 =	−4 · 7 =
3 ⋅ −3 =	-8 ⋅ 2 =	−7·−1 =	-8 · 2 =	−2·−4 =	-8 · -3 =	2 ⋅ −6 =
9 · -8 =	-6 ⋅ 1 =	$-5\cdot 3 =$	$-3\cdot 9 =$	$-6\cdot -5 =$	-9·-5 =	-4 · - 5 =
$-4 \cdot 4 =$	-2·-8 =	9 · -1 =	−8 · 4 =	8·-5 =	6 · -8 =	−7 · 7 =
-2·-3 =	-9 ⋅3 =	-7·-8 =	-4·4 =	5 · -4 =	8 · -6 =	-6 · -2 =

Integers: Division
Fluency C
(70 items)

Name_____ Date____

$-32 \div 8 =$	72 ÷ -9 =	$-24 \div -6 =$	-10 ÷ 2 =	$-48 \div -6 =$	16 ÷ −8 =	$-28 \div 4 =$
-48 ÷ 8 =	10 ÷ −5 =	$-12 \div -3 =$	$-36 \div 9 =$	-9 ÷ -9 =	$-36 \div 9 =$	-42 ÷ −7 =
12 ÷ −4 =	-81 ÷ −9 =	-9 ÷ 3 =	−24 ÷ −3 =	$-30 \div 5 =$	21 ÷ -7 =	-64 ÷ 8 =
$-27 \div -9 =$	-63 ÷ 9 =	−12 ÷ −6 =	-6 ÷ 2 =	-4 ÷ 2 =	$-63 \div -7 =$	$-20 \div -4 =$
54 ÷ -9 =	−5 ÷ 5 =	18 ÷ −3 =	20 ÷ −5 =	8 ÷ -8 =	$-56 \div -8 =$	$-15 \div -5 =$
8 ÷ -4 =	$-6 \div -3 =$	-40 ÷ 5 =	35 ÷ −7 =	18 ÷ −9 =	$-18 \div -2 =$	$36 \div -4 =$
$36 \div -6 =$	-12 ÷ 2 =	-48 ÷ 8 =	$-72 \div -8 =$	$-25 \div -5 =$	$0 \div -6 =$	$-24 \div -8 =$
$-45 \div -5 =$	$-45 \div -9 =$	−21 ÷ −3 =	-28 ÷ 7 =	$-35 \div -5 =$	6 ÷ -6 =	49 ÷ −7 =
$-27 \div -9 =$	15 ÷ −3 =	-14 ÷ 7 =	16 ÷ −2 =	$-32 \div -4 =$	56 ÷ −8 =	-15 ÷ -5 =
$-7 \div -7 =$	8 ÷ −2 =	-16 ÷ −4 =	-40 ÷ −8 =	-24 ÷ 4 =	56 ÷ −7 =	-18 ÷ 6 =

Fraction/Decimal
Conversion C
(70 items)

Name	Date

Directions: Convert fractions to decimals and decimals to fractions.

$\frac{1}{3}$ =	0.81 =	0.41 =	$\frac{41}{100} =$	0.2 =	$\frac{3}{5} =$	$\frac{73}{100} =$	0.93 =	$\frac{3}{50} =$	0.09 =
0.27 =	$\frac{13}{25} =$	$\frac{32}{50}$ =	$\frac{7}{100}$ =	0.48 =	$\frac{7}{100} =$	$\frac{12}{25}$ =	0.39 =	0.81 =	0.07 =
0.5 =	0.75 =	$\frac{1}{4}$ =	0.45 =	$\frac{1}{10} =$	0.6 =	$\frac{3}{5}$ =	$\frac{69}{100}$ =	$\frac{1}{5}$ =	$\frac{3}{20} =$
$\frac{1}{4}$ =	$\frac{11}{25} =$	0.3 =	$\frac{7}{100}$ =	0.75 =	$\frac{63}{100} =$	0.17 =	$\frac{13}{20} =$	0.91 =	0.65 =
$\frac{3}{20}$ =	$\frac{23}{50} =$	0.98 =	0.05 =	0.6 =	$\frac{1}{4}$ =	0.2 =	0.32 =	$\frac{7}{10} =$	$\frac{9}{25} =$
0.35 =	$\frac{19}{20} =$	0.19 =	$\frac{2}{5}$ =	$\frac{1}{50} =$	$\frac{1}{100} =$	$\frac{3}{10} =$	0.05 =	0.17 =	0.1 =
$\frac{4}{5}$ =	0.71 =	$\frac{1}{20} =$	0.8 =	0.08 =	$\frac{1}{25} =$	0.12 =	$\frac{71}{100}$ =	0.82 =	$\frac{1}{4}$ =