



Name _____

Algebra Summer Assignment #1

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

1

2

3

4

5

6

7

8

9

10

11

12

Diameter _____

Circumference _____

Area _____

p=

x =

x <

x =

Choice ____

Choice ____

____ sq cm

____ sq m

Choice ____

m=

Choice ____

13

x >

14

Choice ____

15

Choice ____

16

Choice ____

17

Choice ____

18

Choice ____

19

20

21

22

23

24

Name: _____

Assignment: Accelerated Algebra Summer Assignment #1

1 Find the solution to the equation $4\frac{1}{2}p + \frac{1}{2} = 7\frac{1}{4}$. Express your answer in lowest terms.

Answer: $p =$

2 Simplify and solve: $12 - 2(x - 5) = 20$.

Answer: $x =$

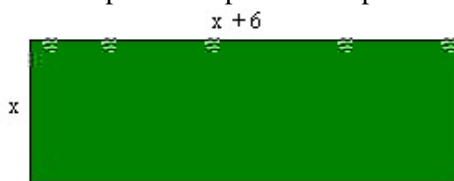
3 Simplify and solve the inequality: $-4(x + 2) > 44$.

Answer: $x <$

4 Find the solution to the equation: $\frac{1}{5}x - 9 =$, expressing x as a mixed number in simplest form.

Answer: $x =$

5 Which expression represents the perimeter of this rectangle?



- 1 $2x + 6$
- 2 $4x + 12$
- 3 $4(x + 6)$
- 4 $4x$


6

7 Fill in the tM

£ the N d M

23 Which equation is equivalent to $3x + 4y = 15$?

1


$$y = \frac{3x - 15}{4}$$

2

3 $y = 15 - 3x$

4 $y = 3x - 15$

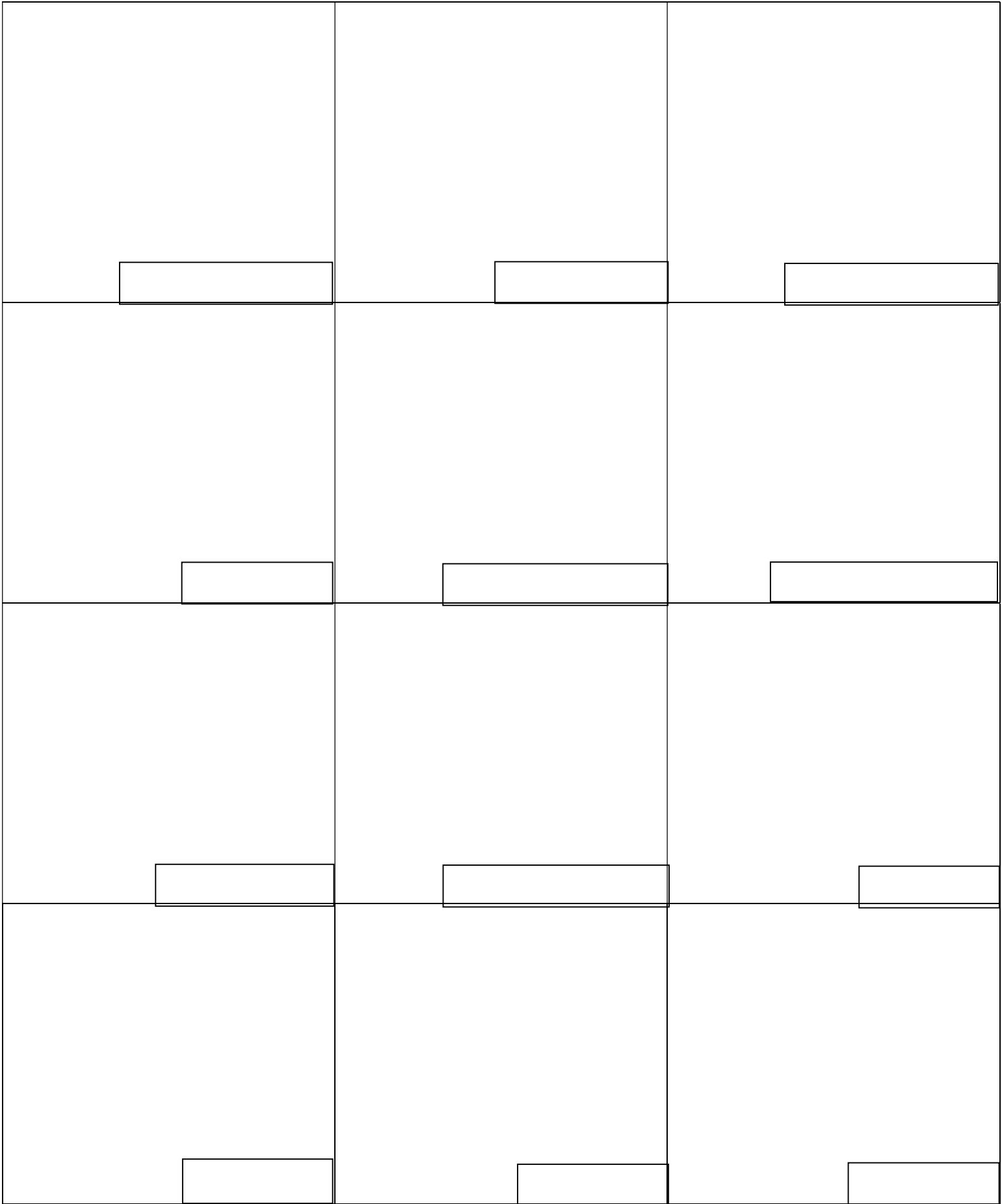
24 The line $3x - 2y = 12$ has

1 a slope of $\frac{3}{2}$ and a y-intercept of -6

2 a slope of $-\frac{3}{2}$ and a y-intercept of 6

3 a slope of 3 and a y-intercept of -2

4 a slope of -3 and a y-intercept of -6



20 Kylie and Rhoda are solving the equation $4(x - 8) = 7(x - 4)$.

- Kylie uses a first step that results in $4x - 32 = 7x - 28$.
- Rhoda uses a first step that results in $4x - 8 = 7x - 4$.

Which statement about the first steps Kylie and Rhoda use is true?

- 1 Kylie uses the associative property, resulting in a correct first step.
- 2 Kylie uses the distributive property, resulting in a correct first step.
- 3 Rhoda uses the associative property, resulting in a correct first step.
- 4 Rhoda uses the distributive property, resulting in a correct first step.

13

14

15

Name: _____

Class/Period: _____

Assignment: Accelerated Algebra Summer Assignment #3


1 Linda paid \$48 for a jacket that was on sale for 25% of the original price. What was the original price of the jacket?

- 1 \$60
- 2 \$72
- 3 \$96
- 4 \$192


2 A 14-gram serving of mayonnaise contains 11 grams of fat. What percent of the mayonnaise, to the *nearest tenth of a percent*, is fat?

Answer: %

3 Solve for x : $15x - 3(3x + 4) = 6$

- 1 1
- 2 - 
- 3 3
- 4 $\frac{1}{3}$

4 Solve for x : $\frac{x}{4} + 7 = 5$

- 1 8
- 2 -8
- 3 3
- 4 - 

5 Solve for x : $\frac{3x}{4} - 1 = 2$

- 1 $\frac{4}{3}$
- 2 2
- 3 3
- 4 4

6 Sue bought a picnic table on sale for 50% off the original price. The store charged her 10% tax and her final cost was \$22.00. What was the original price of the picnic table?

Answer: \$

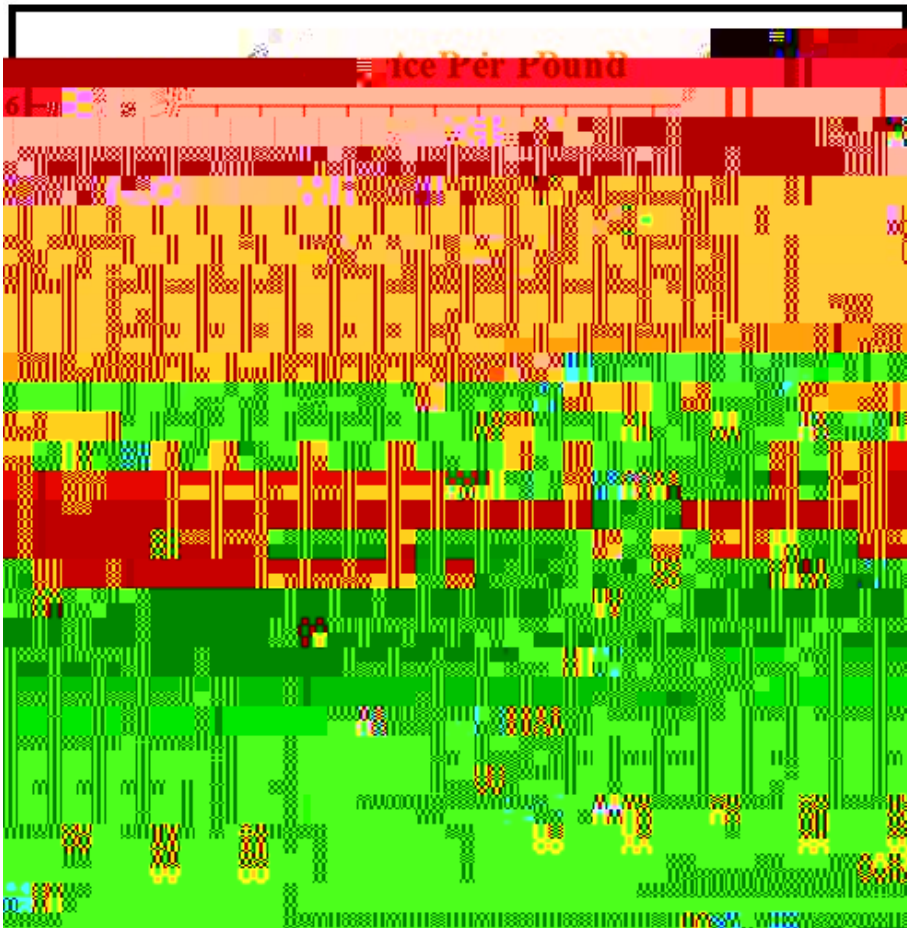
$$7 \frac{1}{10}$$

12 Stefano purchased a truck for $\frac{5}{6}$ of the sticker price of \$35,670. He had to pay 7.25% sales tax. What was the amount of Stefano's bill?

- 1 \$42,804.00
- 2 \$32,311.08
- 3** \$31,880.06
- 4 \$29,725.00

13 Your family purchased new living room furniture on credit at the store, which is a simple interest loan. If your family paid

4



The graph above represents the cost of bananas compared to the weight of the bananas for Company A. Company B uses the equation $c = 1.5w$ to figure out the cost, c , for a certain weight, w , in pounds of bananas.

Select the statement that is true.

- 1 The unit rate for Company A is greater than the unit rate for Company B.
- 2 Two pounds of bananas would cost the same at Company A and Company B.
- 3 Eight pounds of bananas costs no more than \$10 at Company A and Company B.
- 4 Ten pounds of bananas costs more at Company B than at Company A.

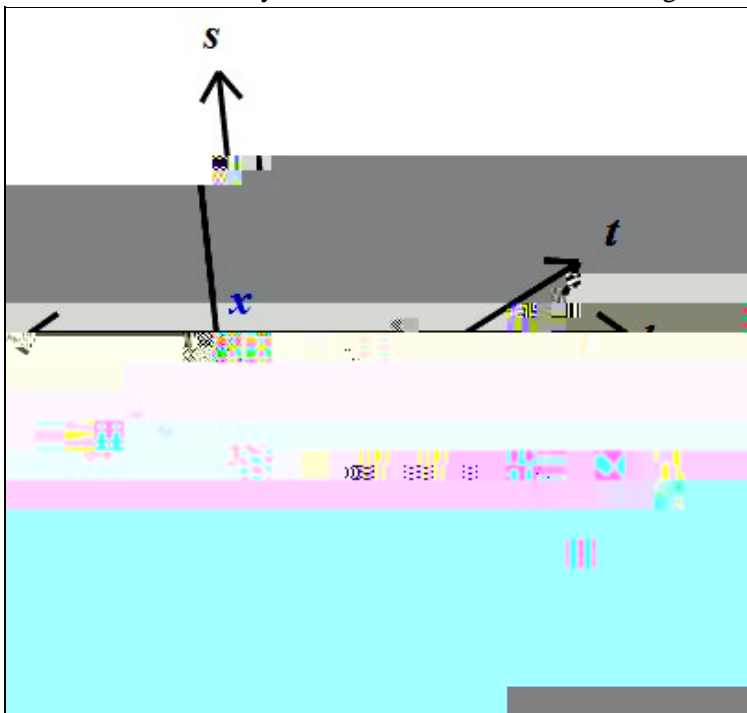
17 A recipe for a dozen cookies calls for $\frac{1}{2}$ c. chocolate chips, $\frac{1}{4}$ c. sugar, $1\frac{1}{2}$ c. flour, and 2 eggs. If Kathy wants to make 4 dozen cookies, which should she use?

- 1 3 c. chocolate chips, 2 c. sugar, 6 c. flour, 8 eggs
- 2 6 c. chocolate chips, 1 c. sugar, 3 c. flour, 4 eggs
- 3 $1\frac{1}{2}$ c. chocolate chips, 1 c. sugar, 3 c. flour, 4 eggs
- 4 9 c. chocolate chips, 6 c. sugar, 9 c. flour, 10 eggs

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Assignment: Accelerated Algebra Summer Assignment #4

1 Parallel lines l and m are cut by transversals s and t to form the diagram below.

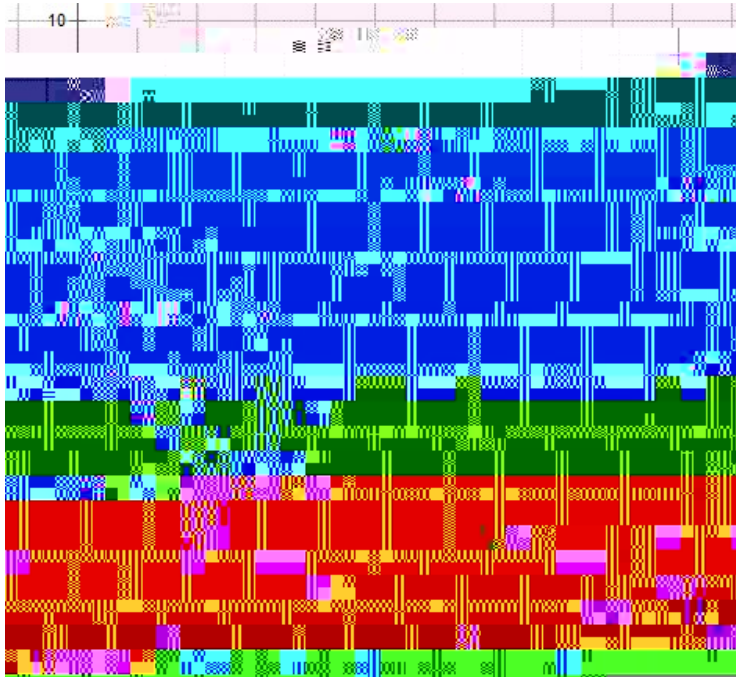


What is the value of x ?

- 1 58°
- 2 64°
- 3 96°
- 4 116°

2 The rectangle below was dilated by a scale factor of $\frac{1}{3}$.

3 Quadrilateral is translated so that the coordinates of are (5, 8).



What are the coordinates of ?

- 1 (4, 6)
- 2 (6, 4)
- 3 (7, 7)
- 4 (8, 5)

4 If $(7.6 \times 10^2)(3.5 \times 10^3) = 2.66 \times 10^9$, what is the value of ?

- 1 6
- 2 5
- 3 3
- 4 7

5 What are the coordinates of the image of point $(2, -7)$ under the translation $(x, y) \rightarrow (x - 3, y + 5)$?

- 1 (-1, -2)
- 2 (-1, 2)
- 3 (5, -12)
- 4 (5, 12)

6 The vertices of have coordinates $(5, 1)$, $(-2, -3)$, and $(-4, 1)$. Under which transformation is the image congruent to ?

- 1 a translation of two units to the right and two units down
- 2 a counterclockwise rotation of 180 degrees around the origin
- 3 a reflection over the y -axis
- 4 a dilation with a scale factor of 2 and centered at the origin

7 Which expression is equivalent to $(5^{-2} 3^{-4})^{-1}$?

1 $\frac{10b^4}{a^3}$

2 $\frac{25b^4}{a^3}$

10 Which expression is equivalent to $x^{-1}y^4$?

1 $\frac{x^4}{3}$

2 $\frac{x^5y^4}{3}$

3 $3^4 5$

4 $\frac{y^4}{x}$

11 A recent computer study showed that computer A processes up to 5.12×10^4 bits of data every second. Computer B processes up to 1.28×10^7 bits of data per second. How many times faster is computer B than computer A?

1 6.40×10^2

2 2.50×10^2

3 4.00×10^{-3}

4 3.84×10^3

12 Which shows $(3^2)^{-2}$ in standard form?

1 1

2 -81

3 $\frac{1}{81}$

4 0

13 What is the value of $\frac{3^2}{4^3}$?

1 $\frac{9}{16}$

2 $\frac{3}{64}$

3 $\frac{9}{4}$

4 $\frac{27}{64}$

14 Simplify the expression $\frac{3x^{-4}y^5}{(2x)^2}$ using only positive exponents.

1 $\frac{y^9}{12x^2}$

2 $\frac{12x^2}{y^9}$

3 $\frac{3y^{12}}{2x}$

4 $\frac{2x}{3y^{12}}$

15 The expression $\frac{12w^9y^3}{-3w^3y^3}$ is equivalent to

1 $-4w^6$

2 $-4w^3$

3 $9w^6$

4 $9w^3$

16 The distance to the Moon from Earth is 5.05×10^8 miles. The distance to the Pluto is 5.05×10^{16} miles. How many times the distance to the Moon is it to Pluto?

1 10^8

2 10,000,000

3 10^9

4 10^{-8}

17 How would you change 2.05×10^{-1} to 2.05×10 ?

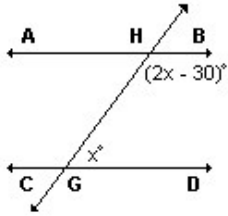
1 Multiply by 1,000.

2 Divide by 1,000.

3 Divide by 100.

4 Multiply by 100.

- 18 In the diagram, transversal \overleftrightarrow{GH} intersects parallel lines \overleftrightarrow{AB} and \overleftrightarrow{CD} , $m\angle H = 2x - 30$, and $m\angle G = x$.



Find the value of x .

- 1 30
- 2 50
- 3 70
- 4 110

- 19 Which is a 180° rotation of the figure?



- 1
- 2
- 3
- 4

- 20 Which expression is equivalent to $(-3x^2)^2$?

- 1 $\frac{1}{9x^2}$
- 2 $-3x^2$
- 3 $\frac{1}{9x^2}$
- 4 $-9x^2$

