DUE DECEMBER 1st Name_____ ID: 1

Beat the Basics 4

Date_____ Algebra____

Evaluate each expression.

1) $12 \div (2 \cdot 2) \cdot 5$

2) $1 + (2 \cdot 3)^2$

Evaluate each using the values given.

3) $y + z^2$; use $y = 1$, and $z = 5$

4) $xy - 5$; use $x = 4$, and $y = 5$

Write each as an algebraic expression.

5) the difference of 18 and z

6) 13 decreased by 8

7) 22 minus x

8) 22 divided by c

Evaluate each expression.

9) $-\frac{1}{2} + \frac{2}{7}$

10) $6 - \frac{3}{2}$

11) $-\frac{2}{3} + -\frac{3}{2}$

12) $\frac{7}{4} + \frac{4}{3}$

13) $\frac{8}{5} \cdot -\frac{3}{4}$

14) $-2 \cdot \frac{3}{2}$

15) $-1 \div \frac{-11}{7}$

16) $\frac{2}{3} \div \frac{-8}{5}$

Solve each equation.

17) $3n - 8 = -20$

18) $\frac{6 + x}{3} = 6$

19) $\frac{v}{2} + 6 = 8$

20) $16 = -3x - x$

21) $-6(1 - 8k) = 40 + 2k$

22) $-\frac{2}{3} + \frac{1}{3}a = -\frac{1}{6}$

Round each to the place indicated.

23) 0.1202; tenths

24) 9.27583; thousandths

Solve each of the following word problems by any method. Show all of your work. Answer each question in a full sentence.

25) A painting is 22 in tall and 11 in wide. If it is reduced to a width of 1 in, then how tall will it be?

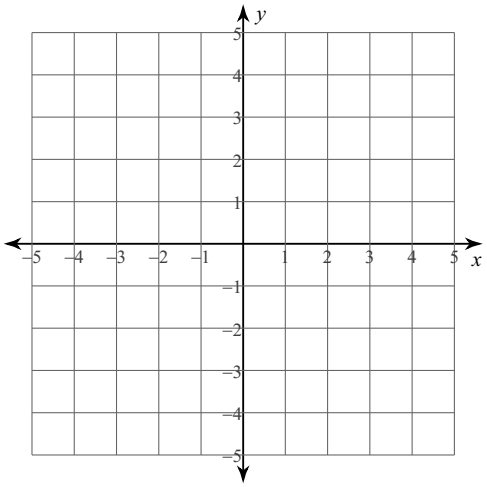
26) Two packages of cherry tomatoes cost $6. How many packages of cherry tomatoes can you buy for $24?

27) Kristin bought nine CDs. A week later half of all her CDs were destroyed in a fire. There are now only 18 CDs left. With how many did she start?

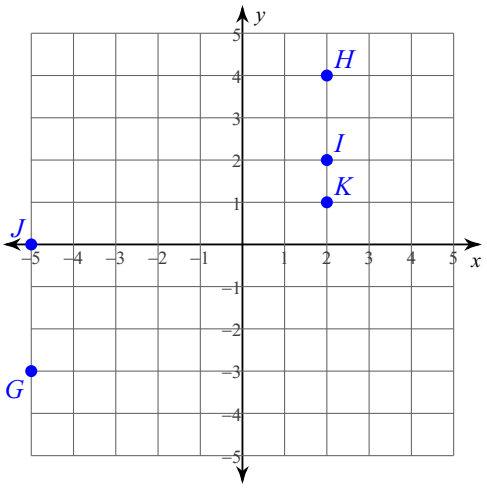
28) On Tuesday Jill bought ten boxes. On Wednesday half of all the boxes that she had were destroyed. On Thursday there were only 17 left. How many did she have on Monday?

For number 29: Plot each point and label it with the correct letter.
For number 30: State the coordinates of each point and lable with the correct letter.

29) $T(4, -3)$ $S(-4, 4)$ $R(2, 1)$
$Q(-2, -3)$ $P(-5, 5)$



30)



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4) $xy - 5$; use $x = 4$, and $y = 5$

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Write each as an algebraic expression.

5) the difference of 18 and z

$18 - z$

6) 13 decreased by 8

$13 - 8$

7) 22 minus x

$22 - x$

8) 22 divided by c

$\frac{22}{c}$

Evaluate each expression.

9) $-\frac{1}{2} + \frac{2}{7}$

$-\frac{3}{14}$

10) $6 - \frac{3}{2}$

$\frac{9}{2}$

11) $-\frac{2}{3} + -\frac{3}{2}$

$-\frac{13}{6}$

12) $\frac{7}{4} + \frac{4}{3}$

$\frac{37}{12}$

13) $\frac{8}{5} \cdot -\frac{3}{4}$

$-\frac{6}{5}$

14) $-2 \cdot \frac{3}{2}$

-3

15) $-1 \div \frac{-11}{7}$

$\frac{7}{11}$

16) $\frac{2}{3} \div \frac{-8}{5}$

$-\frac{5}{12}$

Solve each equation.

17) $3n - 8 = -20$

$\{-4\}$

18) $\frac{6 + x}{3} = 6$

$\{12\}$

19) $\frac{v}{2} + 6 = 8$

$\{4\}$

20) $16 = -3x - x$

$\{-4\}$

21) $-6(1 - 8k) = 40 + 2k$

$\{1\}$

22) $-\frac{2}{3} + \frac{1}{3}a = -\frac{1}{6}$

$\{\frac{3}{2}\}$

Round each to the place indicated.

23) 0.1202; tenths

0.1

24) 9.27583; thousandths

9.276

Solve each of the following word problems by any method. Show all of your work. Answer each question in a full sentence.

25) A painting is 22 in tall and 11 in wide. If it is reduced to a width of 1 in, then how tall will it be?

2 in

26) Two packages of cherry tomatoes cost $6. How many packages of cherry tomatoes can you buy for $24?

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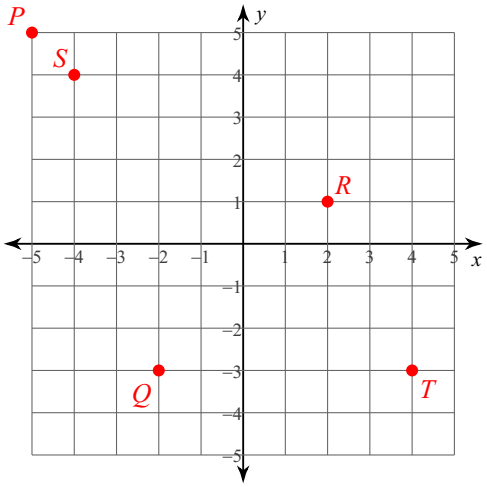

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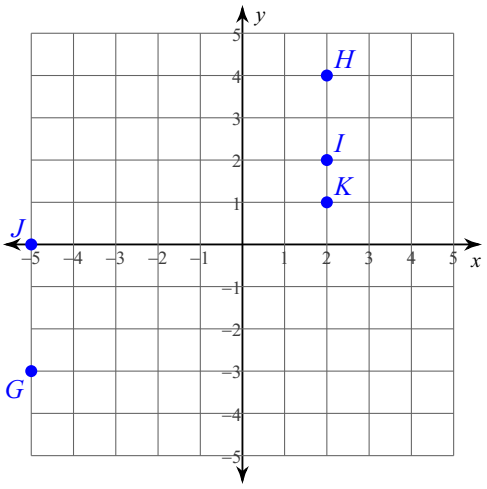

$K(2, 1)$ $J(-5, 0)$ $I(2, 2)$
$H(2, 4)$ $G(-5, -3)$