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Intensified Algebra

Summer Math Packet for students entering INTENSIFIED ALGEBRA

Over the summer to better prepare you for the challenges of Algebra next year, we have put together some worksheets for you to complete over the summer. The packet will be **due the first day back to school in the fall.**

Review Sheet- Fractions. No Calculators Permitted. All work must be shown!!

1) Convert to a mixed number $\frac{11}{3}$ Answer: _____	2) Convert to a mixed number $\frac{25}{9}$ Answer: _____	3) Convert to an improper fraction $2\frac{3}{5}$ Answer: _____	4) Convert to an improper fraction $4\frac{1}{4}$ Answer: _____
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Add the following fractions. Make sure you have a common denominator! Reduce fractions if necessary.

5) $\frac{2}{9} + \frac{5}{9}$ Answer: _____	6) $\frac{3}{7} + \frac{5}{7}$ Answer: _____	7) $4 + \frac{2}{3}$ Answer: _____	8) $\frac{3}{2} + \frac{9}{2}$ Answer: _____
9) $\frac{2}{5} + \frac{1}{10}$ Answer: _____	10) $\frac{2}{3} + \frac{5}{9}$ Answer: _____	11) $1\frac{1}{2} + \frac{5}{6}$ Answer: _____	12) $\frac{2}{7} + \frac{1}{3}$ Answer: _____

29) $\frac{1}{3} \times \frac{2}{5}$	30) $5 \times \frac{3}{5}$	31) $\frac{5}{2} \times \frac{4}{3}$	32) $1\frac{13}{15} \times \frac{10}{7}$
Answer: _____	Answer: _____	Answer: _____	Answer: _____

Divide the following fractions. Make sure to reduce all answers.

33) $\frac{1}{9} \div \frac{2}{5}$	34) $5 \div \frac{5}{8}$	35) $\frac{5}{2} \div \frac{4}{5}$	36) $1\frac{13}{15} \div 7$
Answer: _____	Answer: _____	Answer: _____	Answer: _____

Order of Operations. Evaluate each expression. Remember PEMDAS.

37) $6 + 4 - 2 \cdot 3$	38) $18 - 30 \div 5$	39) $(12 - 4) \div -2$	40) $29 - 3 \cdot 9 + 4$
Answer: _____	Answer: _____	Answer: _____	Answer: _____
41) $-6(2 - 9)$	42) $(9 - 4)^2$	43) $50 - (17 + 8)$	44) $4(1 - 3)^2 - 16$
Answer: _____	Answer: _____	Answer: _____	Answer: _____

Write as a percent.

61) .23	62) 1.05	63) 2	64) .006
Answer: _____	Answer: _____	Answer: _____	Answer: _____

Solve the percent problems.

65) 20% of \$75	66) 8% of \$150	67) 125% of \$50	68) 5.5% of \$10
Answer: _____	Answer: _____	Answer: _____	Answer: _____

Combine like terms.

69) $6x + 5x$	70) $x - 7x$	71) $3x + 1 - 2x + 8$	72) $25x + 7 - 13x$
Answer: _____	Answer: _____	Answer: _____	Answer: _____

Distribute.

73) $3(b + 9)$	74) $5(2x - 3)$	75) $-3(4x + 9)$	76) $-(6p - 11)$
Answer: _____	Answer: _____	Answer: _____	Answer: _____

Write an algebraic expression for each of the following:

77) <i>the sum of thirty and a number</i> Answer: _____	78) <i>a number minus five</i> Answer: _____	79) <i>Three times a number plus two</i> Answer: _____	80) <i>25 divided by a number</i> Answer: _____
81) <i>half of a number</i> Answer: _____	82) <i>twice a number decreased by fifteen</i> Answer: _____	83) <i>five less than twice a number</i> Answer: _____	84) <i>the quotient of a number and 12</i> Answer: _____

Solve the following one step equation.

85) $x + 6 = 15$ Answer: _____	86) $x - 12 = 4$ Answer: _____	87) $3x = -21$ Answer: _____	88) $\frac{x}{4} = -2$ Answer: _____
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Evaluate the following when $a = 2$, $b = -3$, and $c = 4$

89) $b - a$ Answer: _____	90) abc Answer: _____	91) $\frac{ab}{c}$ Answer: _____	92) $b - a^2$ Answer: _____
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Solve the following proportions.

93) $\frac{x}{5} = \frac{21}{35}$

Answer: _____

94) $\frac{9}{x} = \frac{3}{25}$

Answer: _____

95) $\frac{3}{4} = \frac{x-3}{8}$

Answer: _____

96) $\frac{5x}{7} = \frac{3(x+4)}{7}$

Answer: _____

97) $\frac{5}{4} = \frac{15}{2x}$

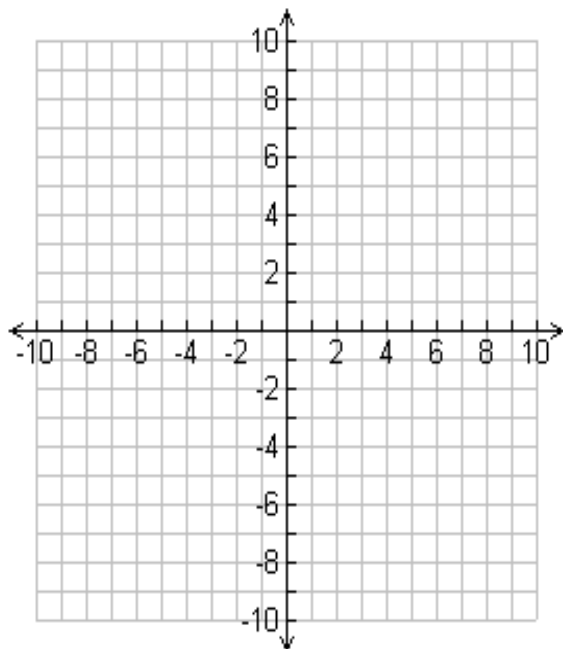
Answer: _____

98) $\frac{3}{7} = \frac{x}{28}$

Answer: _____

Plot each ordered pair on the given graph.

- 1) (1,2)
- 2) (4, -3)
- 3) (-1,-5)
- 4) (-2,0)
- 5) (0,8)
- 6) (-3, 9)



Name the coordinates of the points on the graph.

1) A (,) 2) B (,) 3) C (,)

4) D (,) 5) E (,) 6) F (,)

7) G (,) 8) H (,) 9) I (,)

