

Name: _____ Date: _____ Period: _____

EXPRESSIONS AND FORMULAS – HOMEWORK

Directions: Evaluate each expression.

1) $3(5 - 7) - 10$	2) $4(8 - 4^2)$
3) $1 + 2 - 3(4) \div 2$	4) $20 \div (5 - 3) + 5^2(3)$
4) $12 - [20 - 2(6^2 \div 3 \cdot 2^2)]$	5) $[4(5 - 3) - 2(4 - 8)] \div 16$

Directions: Evaluate each expression if $a = 2, b = -6, c = -3, d = 4$

1) $ab^2 - d$	2) $(c + d)b$
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Directions: Evaluate each expression if $a = 2, b = -6, c = -3, d = 4$

$$3) \frac{ab}{c} + d^2$$

$$4) \frac{d(b-c)}{ac}$$

Directions: Answer the following word problems

1) The formula $F = \frac{9}{5}C + 32$ gives the temperature in degrees Fahrenheit for a given temperature in degrees Celsius. What is the temperature in degrees Fahrenheit when the temperature is -30 degrees Celsius?

2) The formula $h = 120t - 16t^2$ gives the height h in feet of an object t seconds after it is shot upward from Earth's surface with an initial velocity of 120 feet per second. What will the height of the object be after 7 seconds?

3) Mary owns an organic apple orchard. From her experience the last few seasons she has developed the formula $P = 20x - 0.01x^2 - 240$ to predict her profit P in dollars this season if her trees produce x bushels of apples. What is Mary's predicted profit this season if her orchard produces 300 bushels of apples?