NAME:______________________________

1. 080931ia, P.I. A.A.3

Chad complained to his friend that he had five equations to solve for homework. Are all of the homework problems equations? Justify your answer.

Math Homework

1. $3x^2 \cdot 2x^4$
2. $5 - 2x = 3x$
3. $3(2x + 7)$
4. $7x^2 + 2x - 3x^2 - 9$
5. $\frac{2}{3} = \frac{x+2}{6}$

Name Chad

2. 080623a, P.I. A.A.13

The expression $2x^2 - x^2$ is equivalent to

[A] x^0 [B] 2 [C] x^2 [D] $-2x^4$

3. 060625a, P.I. A.A.17

The expression $\frac{5x}{6} + \frac{x}{4}$ is equivalent to

[A] $\frac{3x}{5}$ [B] $\frac{5x}{24}$ [C] $\frac{13x}{12}$ [D] $\frac{5x^2}{10}$

4. fall0727ia, P.I. A.A.17

What is the sum of $\frac{d}{2}$ and $\frac{2d}{3}$ expressed in simplest form?

[A] $\frac{3d}{6}$ [B] $\frac{7d}{5}$ [C] $\frac{3d}{5}$ [D] $\frac{7d}{6}$

5. 010604a, P.I. A.A.1

Which expression represents "5 less than the product of 7 and x"?

[A] $7 + x - 5$ [B] $7x - 5$

[C] $7(x - 5)$ [D] $5 - 7x$

6. 010820a, P.I. A.A.1

If x represents a given number, the expression "5 less than twice the given number" is written as

[A] $5 - 2x$ [B] $5 < 2 + x$

[C] $2x - 5$ [D] $5 < 2x$

7. fall0729ia, P.I. A.A.2

Which verbal expression represents $2(n - 6)$?

[A] two times n minus six

[B] two times the quantity six less than n

[C] two times the quantity n less than six

[D] two times six minus n

8. 060408a, P.I. A.A.1

Tara buys two items that cost d dollars each. She gives the cashier \$20. Which expression represents the change she should receive?

[A] $20 + 2d$ [B] $20 - d$

[C] $20 - 2d$ [D] $2d - 20$

9. 080509a, P.I. A.A.1

The sum of Scott's age and Greg's age is 33 years. If Greg's age is represented by g, Scott's age is represented by

[A] $33 - g$ [B] $g - 33$

[C] $33g$ [D] $g + 33$

NAME:___________________________

10. 060904ia, P.I. A.A.1
Marie currently has a collection of 58 stamps. If she buys s stamps each week for w weeks, which expression represents the total number of stamps she will have?

[A] $58s + w$ [B] $58sw$
[C] $58 + sw$ [D] $58 + s + w$

11. 010903a, P.I. A.A.1
A ship sailed t miles on Tuesday and w miles on Wednesday. Which expression represents the average distance per day traveled by the ship?

[A] $\frac{t+w}{2}$ [B] $t-w$
[C] $2(t+w)$ [D] $t+\frac{w}{2}$

12. 060823ia, P.I. A.A.1
Mr. Turner bought x boxes of pencils. Each box holds 25 pencils. He left 3 boxes of pencils at home and took the rest to school. Which expression represents the total number of pencils he took to school?

[A] $22x$ [B] $25 - 3x$
[C] $25x - 75$ [D] $25x - 3$

13. 060113b, P.I. A.A.1
A store advertises that during its Labor Day sale \$15 will be deducted from every purchase over \$100. In addition, after the deduction is taken, the store offers an early-bird discount of 20% to any person who makes a purchase before 10 a.m. If Hakeem makes a purchase of x dollars, $x>100$, at 8 a.m., what, in terms of x, is the cost of Hakeem's purchase?

[A] $0.20x - 15$ [B] $0.85x - 20$
[C] $0.80x - 12$ [D] $0.20x - 3$

14. 010224a, P.I. A.A.1
Ashanti and Maria went to the store to buy snacks for their back-to-school party. They bought bags of chips, pretzels, and nachos. They bought three times as many bags of pretzels as bags of chips, and two fewer bags of nachos than bags of pretzels. If x represents the number of bags of chips they bought, express, in terms of x, how many bags of snacks they bought in all.

15. spring9824a, P.I. A.A.1
Mr. Cash bought d dollars worth of stock. During the first year, the value of the stock tripled. The next year, the value of the stock decreased by \$1200.
(a) Write an expression in terms of d to represent the value of the stock after two years.
(b) If an initial investment is \$1,000, determine its value at the end of 2 years.

[1] [2] "No," and an appropriate justification is given.
[1] The equations and expressions are correctly categorized, but the justification is missing or is incorrect.
or [1] Appropriate justification is given, but the question is not answered or is answered incorrectly.
[0] "No," but the justification is missing or is incorrect.
or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

[2] C

[3] C

[4] D

[5] B

[6] C

[7] B

[8] C

[9] A

[10] C

[11] A

[12] C

[13] C

[14] [2] $7x$ - 2 or $x + 3x + 3x$ - 2, and appropriate work is shown, such as $x + 3x + 3x - 2$ when chips = x, pretzels = $3x$, and nachos = $3x$ - 2.
[1] The expressions for snacks are represented correctly, but one computational error is made in adding the expressions.
or [1] The expressions for snacks are represented incorrectly, but the expressions are added appropriately.
or [1] $7x$- 2, but no work is shown.
[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

[15] [2] a) $3d$ - 1200 or an equivalent expression.
AND
b) $1800.
[1] One of the correct answers listed above.
or [1] Calculating an answer for part (b) which is correct for an incorrect expression shown in part (a).