Regents Exam Questions by Topic
NUMBERS OPERATIONS AND PROPERTIES:
Evaluating Variable Expressions
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NAME:_____

1. 010015a, P.I. A.N.6
If $t = -3$, then $3t^2 + 5t + 6$ equals
[A] -36 [B] 6 [C] 18 [D] -6

2. 060807a, P.I. A.N.6
What is the value of the expression $2x^3y$ when $x = -2$ and $y = 3$?
[A] -108 [B] -192 [C] -48 [D] 48

3. 080408a, P.I. A.N.6
If $x = -4$ and $y = 3$, what is the value of $x - 3y^2$?
[A] -13 [B] -23 [C] -31 [D] -85

4. 060726a, P.I. A.N.6
If $a = 3$ and $b = -1$, what is the value of $ab - b^2$?
[A] 2 [B] 4 [C] -2 [D] -4

5. 010915a, P.I. A.N.6
If $x = 2$ and $y = -3$, what is the value of $2x^2 - 3xy - 2y^2$?
[A] -20 [B] 16 [C] -2 [D] 8

6. 080617a, P.I. A.N.6
If $x = 4$ and $y = -2$, the value of $\frac{1}{2}xy^2$ is
[A] 32 [B] -8 [C] -4 [D] 8

7. 010406a, P.I. A.N.6
What is the value of $\frac{x^2 - 4y}{2}$, if $x = 4$ and $y = -3$?
[A] -2 [B] 2 [C] 14 [D] 10

8. 060432a, P.I. A.N.6
Brett was given the problem: "Evaluate $2x^2 + 5$ when $x = 3$." Brett wrote that the answer was 41. Was Brett correct? Explain your answer.

9. 080508a, P.I. A.N.6
The height of a golf ball hit into the air is modeled by the equation $h = -16t^2 + 48t$, where h represents the height, in feet, and t represents the number of seconds that have passed since the ball was hit. What is the height of the ball after 2 seconds?
[A] 64 ft [B] 80 ft [C] 32 ft [D] 16 ft

[1] C

[2] C

[3] C

[4] D

[5] D

[6] D

[7] C

[2] No, and an appropriate explanation is given or the expression is evaluated correctly.
[1] No, and the correct order of operations is used to evaluate $2(3)^2 + 5$, but one computational error is made.
or [1] One conceptual error is made in evaluating the expression, but the question is answered appropriately.
or [1] Appropriate work is shown, but the question is not answered.
[0] No, but no explanation or an inappropriate explanation is given.
or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an

[8] obviously incorrect procedure.

[9] C