

## Section 3-5: Evaluating Algebraic Expressions

1. 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.

2. 080408a, P.I. A.N.6

If  $x = -4$  and  $y = 3$ , what is the value of  $x - 3y^2$ ?

[A] -23    [B] -31    [C] -13    [D] -85

3. 010015a, P.I. A.N.6

If  $t = -3$ , then  $3t^2 + 5t + 6$  equals

[A] 6    [B] 18    [C] -36    [D] -6

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. 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] 10    [C] -2    [D] 14

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

[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

[1] obviously incorrect procedure.

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[2] B

[3] B

[4] B

[5] D

[6] B