**Absolute Values**

**April 2015**

1. |3(-2) + 4| = ?

1. -2
2. 2
3. 5
4. 9
5. 10

**December 2015**

40. What is the set of real solutions for |x|2 - |x| - 2 = 0?

1. {2}
2. {-2, 2}
3. {-1, 2}
4. {1, 2}
5. {-2, -1, 1, 2}

**June 2016**

15. |6(-7) + 4(8)| = ?

1. -144
2. -10
3. 10
4. 74
5. 144

54. The graphs of the functions y = f(x) = (x - 3)2 + 2 and y = g(x) = (½)x + (½) are shown in the standard (x,y) coordinate plane below. Which of the following is NOT true?

\*\*\*\*\*\*\*picture\*\*\*\*\*\*

1. |f(x)| = f(x)
2. |g(x)| = g(x)
3. f(3) = g(3)
4. f(3 ½ ) = g(3 ½ )
5. f(g(1)) = 6

**April 2016**

1. What is |5 - x| when x=9?

1. -14
2. -4
3. 4
4. 9
5. 14

**December 2016**

5. What is the value of 2|2 - 9| - 3(4 + 2)?

1. -32
2. -26
3. -15
4. -5
5. -4

45. For all real numbers *a, b,* and *c*, which of the following expressions is equal to |a - b - c|?

1. |a + b + c|
2. |a + b - c|
3. |a - b + c|
4. |-a +b + c|
5. |-a - b - c|

58. What is the minimum value of f(x) = | -(x - h)2 + k| - q for each set of positive real numbers, *h, k,* and *q*?

1. -q
2. -k
3. K
4. -k - q
5. k - q

**June 2017**

10. What is the value of |-6| - |7 - 41| ?

1. -40
2. -28
3. 28
4. 40
5. 54

**April 2017**

15. What is the value of the expression below?

| | -8 + 4 | - | 3 - 9 | |

1. -18
2. -2
3. 0
4. 2
5. 18

40. The equation |2x - 8| + 3 = 5 has 2 solutions. Those solutions are equal to the solutions to which of the following pairs of equations?

1. 2x - 5 = 5  
   -2x - 5 = -5
2. 2x - 8 = 2  
   -2x - 8 = 2
3. 2x - 8 = 8  
   -(2x - 8) = 8
4. 2x - 8 = 2  
   -(2x - 8) = 8
5. 2x - 8 = 2  
   -(2x - 8) = 2