

Algebra: Finding the Midpoint of a Line

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Name: _____ Date: _____ Score: _____

DIRECTIONS Use the Midpoint Formula $M = ((x_1+x_2)/2, (y_1+y_2)/2)$ to find the midpoint of each segment.

1 Find midpoint:

(2, 4) and (6, 8)

Answer: _____

2 Find midpoint:

(0, 0) and (10, 4)

Answer: _____

3 Find midpoint:

(-2, 3) and (4, 7)

Answer: _____

4 Find midpoint:

(-6, -2) and (2, 4)

Answer: _____

5 Find midpoint:

(1, -3) and (5, 9)

Answer: _____

6 Find midpoint:

(-4, 0) and (0, -8)

Answer: _____

7 Find midpoint:

(3, 5) and (-1, -1)

Answer: _____

8 Find midpoint:

(-3, -5) and (7, 1)

Answer: _____

9 Find midpoint:

(0, 6) and (8, -2)

Answer: _____

10 Find midpoint:

(-5, 4) and (3, -4)

Answer: _____

Answer Key & Solutions

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TEACHER NOTES

Average the x-coordinates, average the y-coordinates. Watch signs carefully with negatives. Answer is an ordered pair.

1 (2,4) and (6,8)

= (4, 6)

$$((2+6)/2, (4+8)/2) = (4, 6)$$

2 (0,0) and (10,4)

= (5, 2)

$$(10/2, 4/2) = (5, 2)$$

3 (-2,3) and (4,7)

= (1, 5)

$$((-2+4)/2, (3+7)/2) = (1, 5)$$

4 (-6,-2) and (2,4)

= (-2, 1)

$$((-6+2)/2, (-2+4)/2) = (-2, 1)$$

5 (1,-3) and (5,9)

= (3, 3)

$$((1+5)/2, (-3+9)/2) = (3, 3)$$

6 (-4,0) and (0,-8)

= (-2, -4)

$$((-4+0)/2, (0-8)/2) = (-2, -4)$$

7 (3,5) and (-1,-1)

= (1, 2)

$$((3-1)/2, (5-1)/2) = (1, 2)$$

8 (-3,-5) and (7,1)

= (2, -2)

$$((-3+7)/2, (-5+1)/2) = (2, -2)$$

9 (0,6) and (8,-2)

= (4, 2)

$$((0+8)/2, (6-2)/2) = (4, 2)$$

10 (-5,4) and (3,-4)

= (-1, 0)

$$((-5+3)/2, (4-4)/2) = (-1, 0)$$