

Name:

Class:

Topic:

Date:

Main Ideas/Questions	Notes
<p style="text-align: center;"><i>Distance Formula</i></p>	<p>Used to find the distance between two points (x_1, y_1) and (x_2, y_2)</p> <p>Formula:</p>
<p>EXAMPLES:</p> <p>1. Find the distance between the two points on the graph.</p> <p>2. Find AB when A(-4, 1) and B(3, -1)</p> <p>3. Find EF when E(-7, -2) and F(11, 3)</p>	<p>1.</p> <div style="text-align: right;"> </div> <p>2. "Find AB" means: Find the distance between A and B.</p> <p>3.</p>
<p style="text-align: center;"><i>Midpoint Formula</i></p>	<p>Used to find the midpoint between two points (x_1, y_1) and (x_2, y_2)</p> <p>Formula:</p>
<p>1. Find the midpoint of GH given: G(7, -5) and H(9, -1)</p> <p>2. Find the midpoint of AB given: A(-7, 4) and B(3, -4)</p>	<p>1.</p> <p>2.</p>

Why did the chicken cross the basketball court?

Partner A: _____

Partner B: _____

Set 1: Find the distance between each pair of points.

5. (-3, 4) and (2, 6)	d = _____	A. (2, 8) and (-3, 2)	d = _____
11. (-5, -7) and (1, -2)	d = _____	G. (0, 1) and (-6, -2)	d = _____
2. (8, 3) and (3, 8)	d = _____	L. (8, -5) and (-1, -2)	d = _____
20. (-3, 5) and (0, -4)	d = _____	E. (-5, 2) and (-3, -3)	d = _____
16. (-4, 3) and (2, 6)	d = _____	H. (-3, 8) and (2, 3)	d = _____

Set 2: Find the distance between each pair of points.

3. (-8, -7) and (-1, -1)	d = _____	I. (1, -3) and (-7, -4)	d = _____
21. (2, -8) and (5, -6)	d = _____	F. (-7, -6) and (1, 0)	d = _____
8. (-6, 3) and (5, 6)	d = _____	S. (-3, -5) and (-1, -8)	d = _____
17. (1, 5) and (7, -3)	d = _____	A. (1, 8) and (-6, -1)	d = _____
14. (-1, 4) and (0, -4)	d = _____	E. (2, -8) and (-4, -1)	d = _____

Set 3: Find the midpoint between each pair of points.

1. (0, 8) and (8, -6)	M = _____	C. (8, -9) and (8, 5)	M = _____
19. (3, 7) and (-9, 5)	M = _____	R. (5, -6) and (-1, -8)	M = _____
10. (6, 3) and (10, -7)	M = _____	L. (4, -1) and (6, 1)	M = _____
4. (9, -4) and (-5, -10)	M = _____	T. (-1, -7) and (9, 9)	M = _____
12. (8, -3) and (2, 3)	M = _____	W. (-3, 3) and (-3, 9)	M = _____

Set 4: Find the midpoint between each pair of points.

18. (-5, -10) and (3, -2)	M = _____	N. (1, 6) and (-7, 8)	M = _____
6. (8, 3) and (2, 1)	M = _____	L. (2, -1) and (-2, 7)	M = _____
13. (7, 4) and (-7, 2)	M = _____	W. (-7, 2) and (-9, -2)	M = _____
9. (-10, 6) and (2, -4)	M = _____	F. (10, 3) and (0, 1)	M = _____
15. (-3, 9) and (-3, 5)	M = _____	O. (4, -9) and (-6, -3)	M = _____
7. (-11, -4) and (-5, 4)	M = _____	S. (0, 5) and (-8, -3)	M = _____

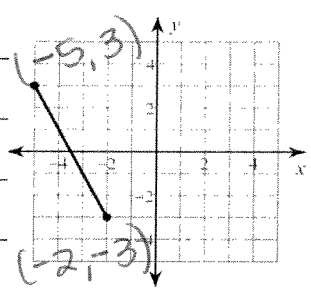
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
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Name: Key

Class:

Topic: Distance & Midpoint

Date:

Main Ideas/Questions	Notes
<p>Distance Formula</p>	<p>Used to find the distance between two points (x_1, y_1) and (x_2, y_2)</p> <p>Formula: $d = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$</p>
<p>EXAMPLES:</p> <p>1. Find the distance between the two points on the graph.</p>	<p>1. $d = \sqrt{(-5 - 2)^2 + (3 - 3)^2}$ $= \sqrt{(-3)^2 + (6)^2}$ $= \sqrt{9 + 36}$ $= \sqrt{45} = \boxed{6.71}$</p> 
<p>2. Find AB when A(-4, 1) and B(3, -1)</p>	<p>2. "Find AB" means: Find the distance between A and B.</p> <p>$d = \sqrt{(-4 - 3)^2 + (1 - (-1))^2}$ $= \sqrt{(-7)^2 + (2)^2}$ $= \sqrt{49 + 4} = \sqrt{53} = \boxed{7.28}$</p>
<p>3. Find EF when E(-7, -2) and F(11, 3)</p>	<p>3. $d = \sqrt{(-7 - 11)^2 + (-2 - 3)^2}$ $= \sqrt{(-18)^2 + (-5)^2}$ $= \sqrt{324 + 25} = \sqrt{349} = \boxed{18.68}$</p>
<p>Midpoint Formula</p>	<p>Used to find the midpoint between two points (x_1, y_1) and (x_2, y_2)</p> <p>Formula: $M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$</p>
<p>1. Find the midpoint of GH given: G(7, -5) and H(9, -1)</p>	<p>1. $M = \left(\frac{7+9}{2}, \frac{-5+(-1)}{2} \right)$ $= \left(\frac{16}{2}, \frac{-6}{2} \right) = \boxed{(8, -3)}$</p>
<p>2. Find the midpoint of AB given: A(-7, 4) and B(3, -4)</p>	<p>2. $M = \left(\frac{-7+3}{2}, \frac{4+(-4)}{2} \right)$ $= \left(\frac{-4}{2}, \frac{0}{2} \right) = \boxed{(-2, 0)}$</p>

Why did the chicken cross the basketball court?

Partner A: _____

Partner B: _____

Set 1: Find the distance between each pair of points.

5. (-3, 4) and (2, 6)	$d = \underline{5.39}$	A. (2, 8) and (-3, 2)	$d = \underline{7.81}$
11. (-5, -7) and (1, -2)	$d = \underline{7.81}$	G. (0, 1) and (-6, -2)	$d = \underline{6.71}$
2. (8, 3) and (3, 8)	$d = \underline{7.07}$	L. (8, -5) and (-1, -2)	$d = \underline{9.49}$
20. (-3, 5) and (0, -4)	$d = \underline{9.49}$	E. (-5, 2) and (-3, -3)	$d = \underline{5.39}$
16. (-4, 3) and (2, 6)	$d = \underline{6.71}$	H. (-3, 8) and (2, 3)	$d = \underline{7.07}$

Set 2: Find the distance between each pair of points.

3. (-8, -7) and (-1, -1)	$d = \underline{9.22}$	I. (1, -3) and (-7, -4)	$d = \underline{8.06}$
21. (2, -8) and (5, -6)	$d = \underline{3.61}$	F. (-7, -6) and (1, 0)	$d = \underline{10}$
8. (-6, 3) and (5, 6)	$d = \underline{11.40}$	S. (-3, -5) and (-1, -8)	$d = \underline{3.61}$
17. (1, 5) and (7, -3)	$d = \underline{10}$	A. (1, 8) and (-6, -1)	$d = \underline{11.40}$
14. (-1, 4) and (0, -4)	$d = \underline{8.06}$	E. (2, -8) and (-4, -1)	$d = \underline{9.22}$

Set 3: Find the midpoint between each pair of points.

1. (0, 8) and (8, -6)	$M = \underline{(4, 1)}$	C. (8, -9) and (8, 5)	$M = \underline{(8, -2)}$
19. (3, 7) and (-9, 5)	$M = \underline{(-3, 6)}$	R. (5, -6) and (-1, -8)	$M = \underline{(2, -7)}$
10. (6, 3) and (10, -7)	$M = \underline{(8, -2)}$	L. (4, -1) and (6, 1)	$M = \underline{(5, 0)}$
4. (9, -4) and (-5, -10)	$M = \underline{(2, -7)}$	T. (-1, -7) and (9, 9)	$M = \underline{(4, 1)}$
12. (8, -3) and (2, 3)	$M = \underline{(5, 0)}$	W. (-3, 3) and (-3, 9)	$M = \underline{(-3, 6)}$

Set 4: Find the midpoint between each pair of points.

18. (-5, -10) and (3, -2)	$M = \underline{(-1, -6)}$	N. (1, 6) and (-7, 8)	$M = \underline{(-3, 7)}$
6. (8, 3) and (2, 1)	$M = \underline{(5, 2)}$	L. (2, -1) and (-2, 7)	$M = \underline{(0, 3)}$
13. (7, 4) and (-7, 2)	$M = \underline{(0, 3)}$	W. (-7, 2) and (-9, -2)	$M = \underline{(-8, 0)}$
9. (-10, 6) and (2, -4)	$M = \underline{(-4, 1)}$	F. (10, 3) and (0, 1)	$M = \underline{(5, 2)}$
15. (-3, 9) and (-3, 5)	$M = \underline{(-3, 7)}$	O. (4, -9) and (-6, -3)	$M = \underline{(-1, -6)}$
7. (-11, -4) and (-5, 4)	$M = \underline{(-8, 0)}$	S. (0, 5) and (-8, -3)	$M = \underline{(-4, 1)}$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
T	H	E	R	E	F	W	A	S	C	A	L	L	I	N	G	F	O	W	L	S