Kuta Software - Infinite Algebra 1

Name_____

The Midpoint Formula

Date_____ Period____

Find the midpoint of the line segment with the given endpoints.

1) $(7, 4), (9, -1)$

2) $(8, -9), (0, 5)$

3) $(1, -7), (1, -12)$

4) $(0, 4), (-4, -12)$

5) $(-4, 2), (2, -3)$

6) $(5, 9), (-1, 9)$

7) $(-7, 8), (-2, -9)$

8) $(2, -11), (-9, 0)$

9) $(4, -1), (2, -7)$

10) $(-4, -6), (3, -6)$

11) $(14, 0), (-7, 5)$

12) $(14, -8), (12, -1)$

13) $(-4, 12), (-7, -2)$

14) $\left(-\dfrac{1}{9}, -\dfrac{1}{2}\right), \left(\dfrac{14}{9}, \dfrac{4}{3}\right)$

15) $\left(\dfrac{5}{3}, 1\right)$, $(0, 2)$

16) $\left(-\dfrac{3}{2}, -\dfrac{1}{3}\right)$, $\left(\dfrac{3}{4}, \dfrac{3}{5}\right)$

17) $\left(\dfrac{2}{5}, -\dfrac{2}{5}\right)$, $\left(-\dfrac{7}{8}, -\dfrac{3}{5}\right)$

18) $(6.6, 8.52)$, $(-5.5, 4.07)$

19) $(-2.9, -2.958)$, $(8.6, 5)$

20) $(9.3, 9.4)$, $(8.3, -8.7)$

Given the midpoint and one endpoint of a line segment, find the other endpoint.

21) Endpoint: $(-9, -1)$, midpoint: $(8, 14)$

22) Endpoint: $(10, 12)$, midpoint: $(6, 9)$

23) Endpoint: $(-8, -10)$, midpoint: $(10, -7)$

24) Endpoint: $(-11, 9)$, midpoint: $(3, -11)$

25) Endpoint: $(-2, 7)$, midpoint: $(12, -10)$

26) Endpoint: $(11, 14)$, midpoint: $(10, 14)$

27) Endpoint: $(14, -8)$, midpoint: $(5, 8)$

28) Endpoint: $(-9, 0)$, midpoint: $(10, -7)$

29) Endpoint: $\left(-\dfrac{5}{6}, -\dfrac{1}{3}\right)$, midpoint: $\left(\dfrac{1}{2}, -1\right)$

30) Endpoint: $\left(2, \dfrac{12}{7}\right)$, midpoint: $\left(\dfrac{1}{3}, -\dfrac{8}{5}\right)$

Name_____

The Midpoint Formula

Date_____ Period____

Find the midpoint of the line segment with the given endpoints.

1) $(7, 4)$, $(9, -1)$

$(8, 1.5)$

2) $(8, -9)$, $(0, 5)$

$(4, -2)$

3) $(1, -7)$, $(1, -12)$

$(1, -9.5)$

4) $(0, 4)$, $(-4, -12)$

$(-2, -4)$

5) $(-4, 2)$, $(2, -3)$

$(-1, -0.5)$

6) $(5, 9)$, $(-1, 9)$

$(2, 9)$

7) $(-7, 8)$, $(-2, -9)$

$(-4.5, -0.5)$

8) $(2, -11)$, $(-9, 0)$

$(-3.5, -5.5)$

9) $(4, -1)$, $(2, -7)$

$(3, -4)$

10) $(-4, -6)$, $(3, -6)$

$(-0.5, -6)$

11) $(14, 0)$, $(-7, 5)$

$(3.5, 2.5)$

12) $(14, -8)$, $(12, -1)$

$(13, -4.5)$

13) $(-4, 12)$, $(-7, -2)$

$(-5.5, 5)$

14) $\left(-\dfrac{1}{9}, -\dfrac{1}{2}\right)$, $\left(\dfrac{14}{9}, \dfrac{4}{3}\right)$

$\left(\dfrac{13}{18}, \dfrac{5}{12}\right)$

15) $\left(\dfrac{5}{3}, 1\right)$, $(0, 2)$

$\left(\dfrac{5}{6}, \dfrac{3}{2}\right)$

16) $\left(-\dfrac{3}{2}, -\dfrac{1}{3}\right)$, $\left(\dfrac{3}{4}, \dfrac{3}{5}\right)$

$\left(-\dfrac{3}{8}, \dfrac{2}{15}\right)$

17) $\left(\dfrac{2}{5}, -\dfrac{2}{5}\right)$, $\left(-\dfrac{7}{8}, -\dfrac{3}{5}\right)$

$\left(-\dfrac{19}{80}, -\dfrac{1}{2}\right)$

18) $(6.6, 8.52)$, $(-5.5, 4.07)$

$(0.55, 6.295)$

19) $(-2.9, -2.958)$, $(8.6, 5)$

$(2.85, 1.021)$

20) $(9.3, 9.4)$, $(8.3, -8.7)$

$(8.8, 0.35)$

Given the midpoint and one endpoint of a line segment, find the other endpoint.

21) Endpoint: $(-9, -1)$, midpoint: $(8, 14)$

$(25, 29)$

22) Endpoint: $(10, 12)$, midpoint: $(6, 9)$

$(2, 6)$

23) Endpoint: $(-8, -10)$, midpoint: $(10, -7)$

$(28, -4)$

24) Endpoint: $(-11, 9)$, midpoint: $(3, -11)$

$(17, -31)$

25) Endpoint: $(-2, 7)$, midpoint: $(12, -10)$

$(26, -27)$

26) Endpoint: $(11, 14)$, midpoint: $(10, 14)$

$(9, 14)$

27) Endpoint: $(14, -8)$, midpoint: $(5, 8)$

$(-4, 24)$

28) Endpoint: $(-9, 0)$, midpoint: $(10, -7)$

$(29, -14)$

29) Endpoint: $\left(-\dfrac{5}{6}, -\dfrac{1}{3}\right)$, midpoint: $\left(\dfrac{1}{2}, -1\right)$

$\left(\dfrac{11}{6}, -\dfrac{5}{3}\right)$

30) Endpoint: $\left(2, \dfrac{12}{7}\right)$, midpoint: $\left(\dfrac{1}{3}, -\dfrac{8}{5}\right)$

$\left(-\dfrac{4}{3}, -\dfrac{172}{35}\right)$