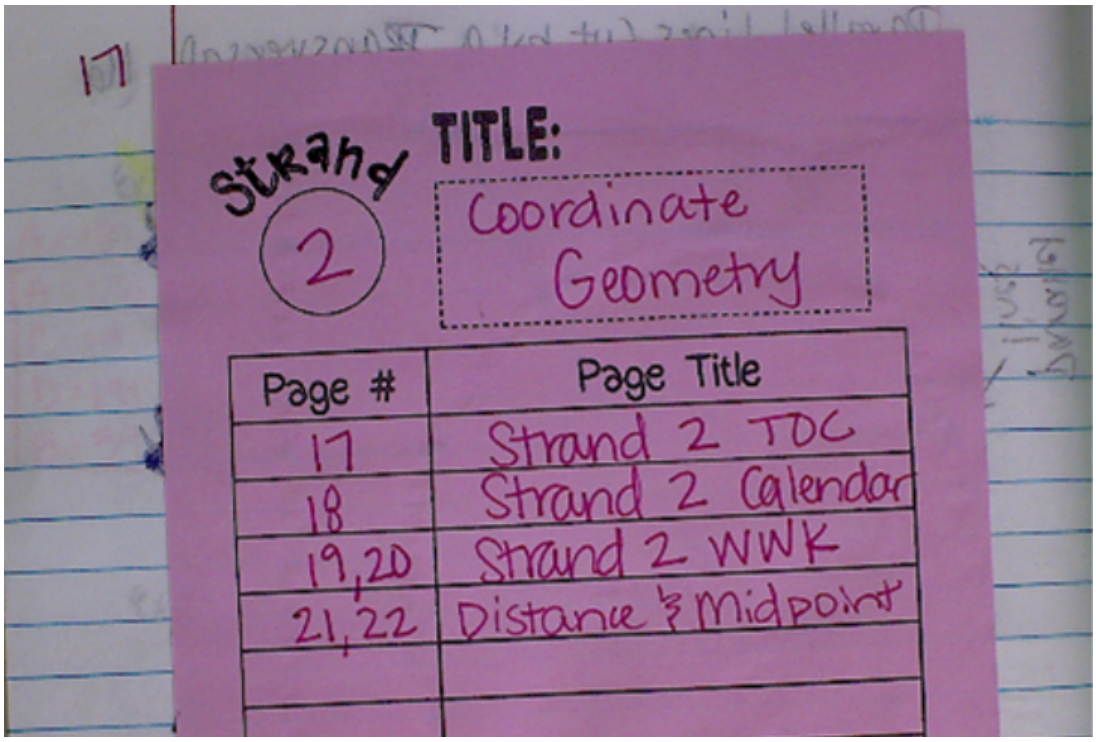
Welcome! Please get your ISN from your shelf and have a seat!
Then complete this warm-up in your Google classroom!!

Sep 6-8:22 AM

PG 17- Glue in the NEW TOC for Strand 2- Coordinate Geometry and PG 18 NEW Calendar for Strand 2



Sep 1-1:38 PM

WWK PG 19-20

- **distance**- measured space between 2 locations. *ALWAYS POSITIVE*

$$d=\sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$$

- **midpoint**- exactly halfway between 2 locations *ordered pair*

$$M=\left(\frac{x_1+x_2}{2},\frac{y_1+y_2}{2}\right)$$

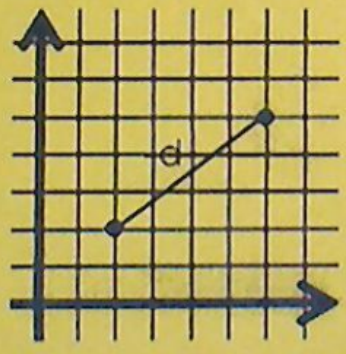
Sep 2-9:13 AM

TOC pg 21-22 Distance and Midpoint

The Distance Formula

$$d=\sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$$

Used to find the distance between two points on the coordinate plane.



Example 1: $x_1 y_1$ $x_2 y_2$

Find the distance between (-3,1) and (2,3).

$$d=\sqrt{(2-(-3))^2+(3-1)^2}$$

$$d=\sqrt{29}=5.4$$

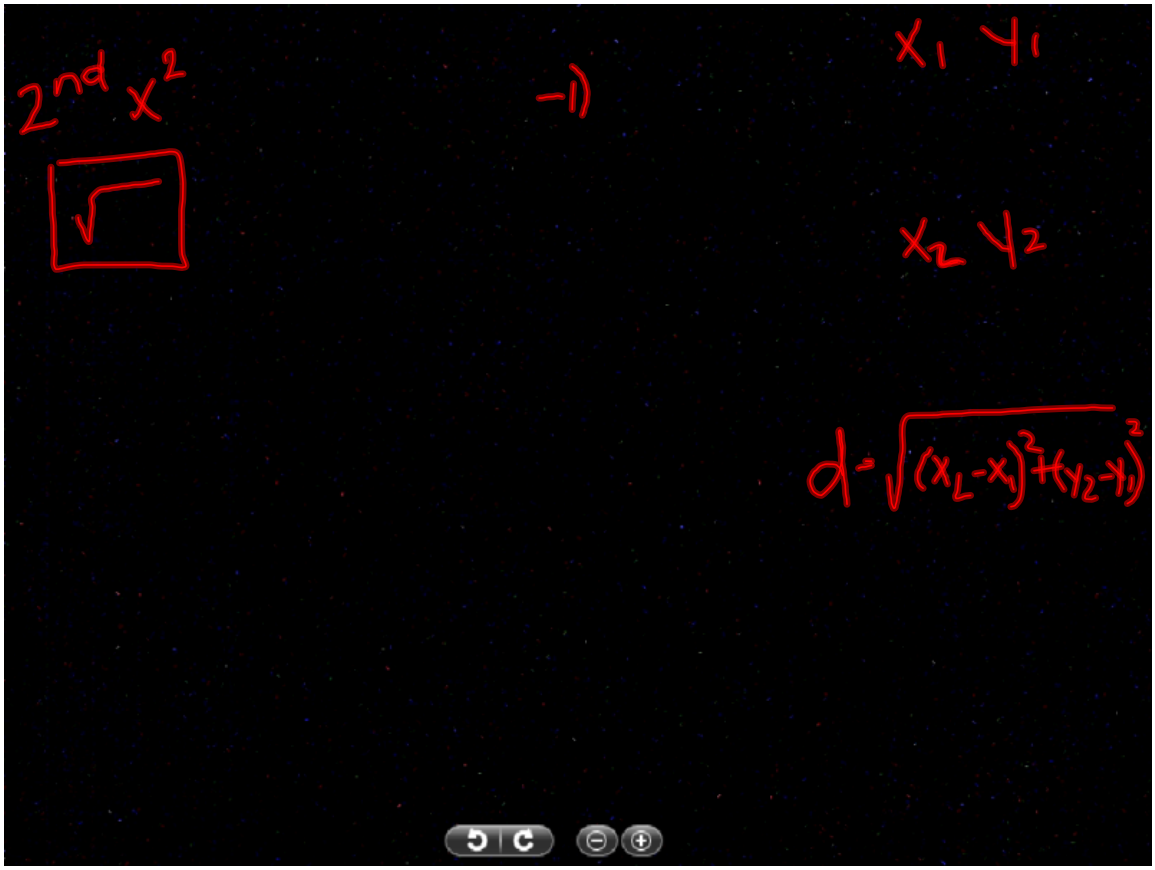
Example 2: $x_1 y_1$ $x_2 y_2$

Find the distance between (-2,1) and (2,5).

$$d=\sqrt{(2-(-2))^2+(5-1)^2}$$

$$d=4\sqrt{2}=5.7$$

Sep 1-11:35 AM

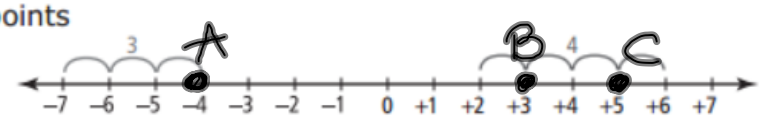


Sep 6-9:40 AM

Welcome! Please grab your ISN and have a seat and complete your WARM UP on a piece of paper !!!

Find the Distance Between Points on a Number Line

The distance between two points on a number line can be determined by counting.



2. What is the distance between the two numbers placed on a number line?

a) 4 and 10 6

b) −2 and −8 6

c) −12 and −3 9

d) +7 and −3 10

e) −12 and 12 24

3. Draw an integer number line.

a) Mark the point that is four less than zero. Label it A.

b) Mark the point that is three more than zero. Label it B.

c) Mark the point that is 7 more than −2. Label it C.

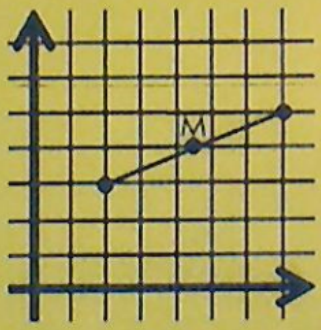
Sep 1-11:32 AM

TOC pg 20-21 Distance and Midpoint

The Midpoint Formula

$$M\left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$$

he midpoint of a line segment is the
oint on the segment that is equidistant
from the endpoints.



Example 3: Find the midpoint of the line segment with endpoints (-3, -1) and (7, -5).

$x_1\ y_1\ \ x_2\ y_2$

$M=\left(\frac{-3+7}{2}, \frac{-1+-5}{2}\right)$

$M=(2,-3)$

Example 4: Find the midpoint of the line segment with endpoints (6, -3) and (4, -7).

$x_1\ y_1\ \ x_2\ y_2$

$M=\left(\frac{6+4}{2}, \frac{-3+-7}{2}\right)$

$M=(5,-5)$

Sep 1-11:35 AM

Welcome! Please grab your ISN, have a seat and complete your WARM UP!!

Find the distance and midpoint of

a.(7, 1) and (2, -4) b(4, -1) and (6, 2)

Sep 1-12:01 PM

NEED TO KNOW (pg 22)

★ Distance is ALWAYS POSITIVE!

★ Midpoint is ALWAYS an ORDERED PAIR

Sep 1-12:44 PM

Ex 1 (pg 21): Find the distance.

a) (3, -1) and (2, 6)

$x_1\ y_1 \qquad x_2\ y_2$

$\sqrt{(2-3)^2+(6-(-1))^2}$

$5\sqrt{2}$

7.1

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

$x_1 y_1 \qquad x_2\ y_2$

$\sqrt{(8-0)^2+(-6-0)^2}$

10

Sep 1-12:46 PM

Ex 2 (pg 19): Find the midpoint

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

$x_1\ y_1 \quad x_2\ y_2$

$\left(\frac{3+5}{2}, \frac{-1+7}{2}\right)$

$(4, 3)$

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

$x_1\ y_1 \quad x_2\ y_2$

$\left(\frac{0+8}{2}, \frac{0+-6}{2}\right)$

$(4, -3)$

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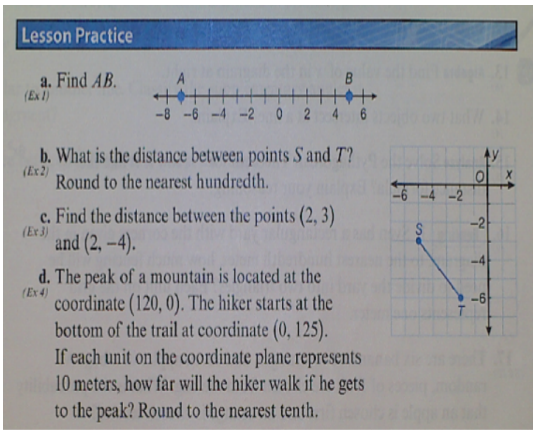
Homework:

Pg 55 (pdf 69)

Lesson practice a-d



Lesson Practice

a. Find AB. (Ex 1)

b. What is the distance between points S and T? Round to the nearest hundredth. (Ex 2)

c. Find the distance between the points (2, 3) and (2, −4). (Ex 3)

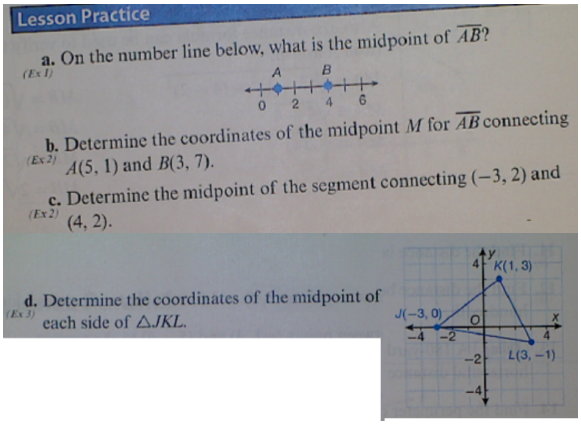
d. The peak of a mountain is located at the coordinate (120, 0). The hiker starts at the bottom of the trail at coordinate (0, 125). If each unit on the coordinate plane represents 10 meters, how far will the hiker walk if he gets to the peak? Round to the nearest tenth. (Ex 4)

Sep 1-12:48 PM

Homework:

page 68 (pdf 82)

lesson practice a-d



Lesson Practice

(Ex 1) **a.** On the number line below, what is the midpoint of $\overline{AB}$?

(Ex 2) **b.** Determine the coordinates of the midpoint M for $\overline{AB}$ connecting $A(5, 1)$ and $B(3, 7)$.

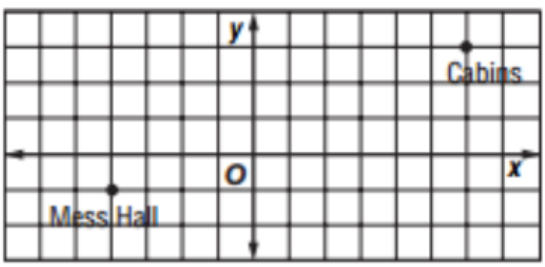
(Ex 2) **c.** Determine the midpoint of the segment connecting $(-3, 2)$ and $(4, 2)$.

(Ex 3) **d.** Determine the coordinates of the midpoint of each side of $\triangle JKL$.

Sep 1-12:48 PM

Welcome! Please grab your ISN and have a seat and complete your WARM UP!!

1. CAMPGROUND Troop 175 is designing their new campground by first mapping everything on a coordinate grid. They have found a location for the mess hall and for their cabins. They want the bathrooms to be halfway between these two. What will be the coordinates of the location of the bathrooms?



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