Welcome Back MYP Math 9

	Assignment Effort Grade (Circle One)	Comments (What was interesting or challenging?)
Monday Date: 10/9 Topic: No HW - Unit 1 Test Friday	0 1 2	
Tuesday Date: 10/10 Topic: 26A Vector Representation, 26B Length	0 1 2	
Wednesday Date: 10/11 Topic: 26C Equal Vectors, 26D Vector Additior	0 1 2	
Thursday Date: 10/12 Topic: 26D Vector Addition, 26E Scalar Multiplication	0 1 2	
Friday Date: _____ Topic: _____	0 1 2	

Class Plan:

1. Warm-up
2. Vector Review
-Solutions posted online

Period 1	10:05-10:35
Period 2	10:40-11:10
Period 3	11:15-11:45
Period 4	11:50-12:20
Period 5	12:25-1:50
A Lunch	12:25-12:55
A Class	1:00-1:50
B Class	12:25-1:15
B Lunch	1:20-1:50
Period 6	1:55-2:25
Period 7	2:30-3:00

Late Start Dates

October 12	February 8
November 9	March 8
December 7	April 12
January 11	May 10

Quiz Rubric:

-Write a vector in component form
-Calculate maginitude
-Calculate multiples of vectors (algebraically and graphically)
-Application of vectors

$3\vec{a} = \begin{pmatrix} 3 \\ 6 \end{pmatrix}$

$\begin{pmatrix} 1 \\ 2 \end{pmatrix} = \vec{a}$

7 8	• Select appropriate mathematics when solving **challenging problems in both familiar and unfamiliar situations.** • Apply the selected mathematics successfully when solving these problems. • Generally solve these problems correctly.			• All problems are solved correctly ***without error.*** (8) -Component form -magnitude -vector operations -Algebraically -Graphically -Application • Vector notation is used **correctly.**

Unit 2 Review

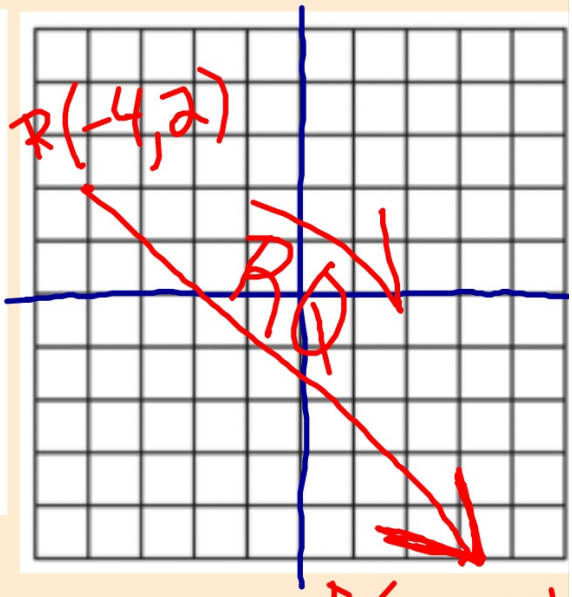
Unit 2 Quiz Review (Vectors!)

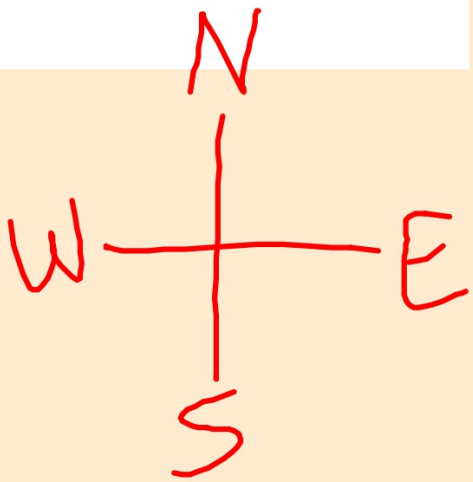
1. Consider the points **Q (3, -5)** and **R (-4, 2)**.

(a) Write down the vector $\overrightarrow{RQ}$.

$\overrightarrow{RQ} = \begin{pmatrix} 3 - -4 \\ -5 - 2 \end{pmatrix}$

(b) Find $\left|\overrightarrow{RQ}\right|$.





Unit 2 Review

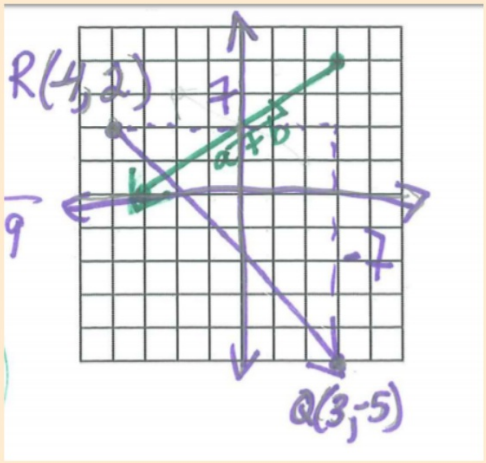
(a) Write down the vector $\overrightarrow{RQ}$.

$\overrightarrow{RQ} = \begin{pmatrix} 3 - -4 \\ -5 - 2 \end{pmatrix} = \begin{pmatrix} 7 \\ -7 \end{pmatrix}$

(b) Find $\left|\overrightarrow{RQ}\right|$.

$|\overrightarrow{RQ}| = \sqrt{49+49}$

$= 7\sqrt{2}$

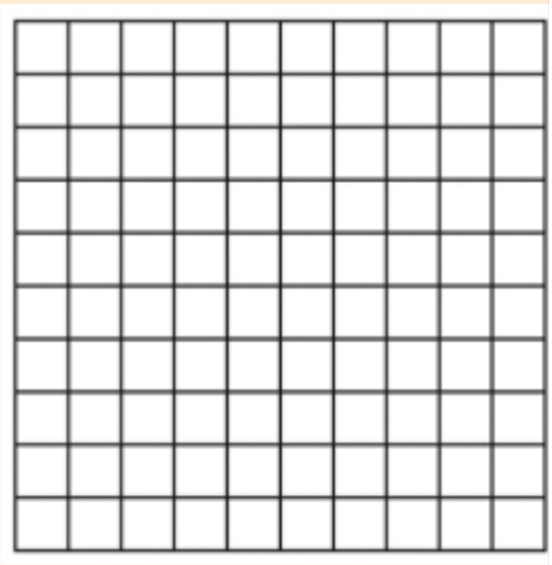


Unit 2 Review

2. Consider vectors $a = \begin{pmatrix} -4 \\ 1 \end{pmatrix}$ and $b = \begin{pmatrix} -2 \\ -5 \end{pmatrix}$.

(a) Draw the resultant vector of $\boldsymbol{a} + \boldsymbol{b}$.

(b) Find $|a+b|$.



Unit 2 Review

2. Consider vectors $a = \begin{pmatrix} -4 \\ 1 \end{pmatrix}$ and $b = \begin{pmatrix} -2 \\ -5 \end{pmatrix}$.

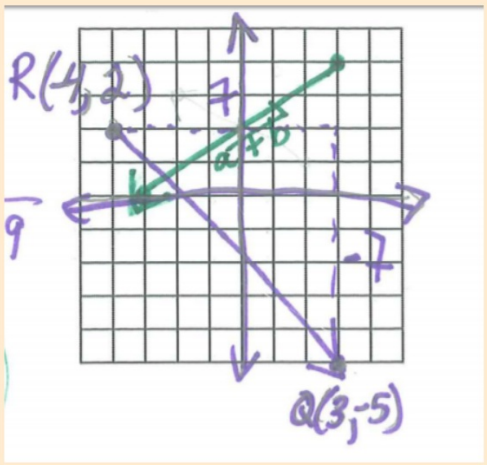
$a+b = \begin{pmatrix} -6 \\ -4 \end{pmatrix}$

(a) Draw the resultant vector of $\boldsymbol{a} + \boldsymbol{b}$.

(see right)

(b) Find $|a+b|$.

$|a+b| = \sqrt{36+16} = \sqrt{52} = 2\sqrt{13}$ units



Unit 2 Review

3. Manny walked from his house, to Caribou, then he walked to school. To get to Caribou Manny walked blocks west and 4 blocks north. From Caribou to school, Manny walked 1 block west and 2 blocks south.

(a) Write Manny's two walking trips as vectors.

Manny

(b) How far did Isabel walk in total?

Unit 2 Review

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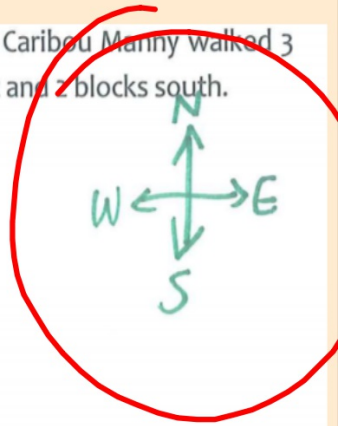

(a) Write Manny's two walking trips as vectors.

$\overrightarrow{HC} = \begin{pmatrix} -3 \\ 4 \end{pmatrix}$ $\overrightarrow{CS} = \begin{pmatrix} -1 \\ -2 \end{pmatrix}$

(b) How far did Isabel walk in total?

$3+4+1+2 =$ 10 blocks!

Unit 2 Review

3. Manny walked from his house, to Caribou, then he walked to school. To get to Caribou Manny walked blocks west and 4 blocks north. From Caribou to school, Manny walked 1 block west and 2 blocks south.

(c) A helicopter flies straight from Manny's house to his school. Write down the helicopter's flight as a vector Then find the distance of the helicopter's flight.

(d) How much shorter was the helicopter's trip than Manny's?

Unit 2 Review

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$\vec{HC} + \vec{CS} = \vec{HS} = \begin{pmatrix} -4 \\ 2 \end{pmatrix}$ $|\vec{HS}| = \sqrt{16+4} = \sqrt{20}$

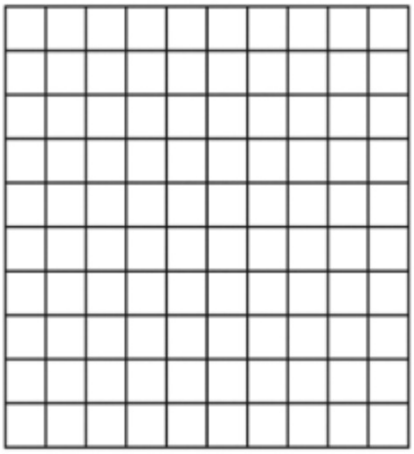
$= 2\sqrt{5}$

(d) How much shorter was the helicopter's trip than Manny's?

$10 - 2\sqrt{5} \approx 5.5$ blocks

Unit 2 Review

4. Ms. Berg is out on her Sunday long run. She runs 4 miles north, 3 miles east, and 5 southwest. She ends bac at her house.



(a) Draw Ms. Berg's run on grid paper.

(b) Write each part of this run in component vector form.

(c) Find Ms. Berg's displacement vector from her starting point. Show all work.

Unit 2 Review

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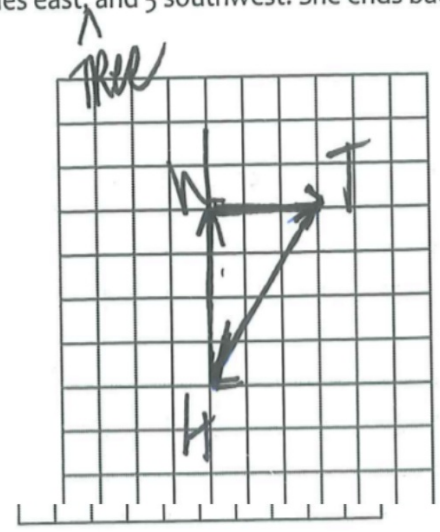


(a) Draw Ms. Berg's run on grid paper.

(b) Write each part of this run in component vector form.

$\overrightarrow{HW} = \begin{pmatrix} 0 \\ 4 \end{pmatrix}$ $\overrightarrow{WT} = \begin{pmatrix} 3 \\ 0 \end{pmatrix}$ $\overrightarrow{TH} = \begin{pmatrix} -3 \\ -4 \end{pmatrix}$

(c) Find Ms. Berg's displacement vector from her starting point. Show all work.

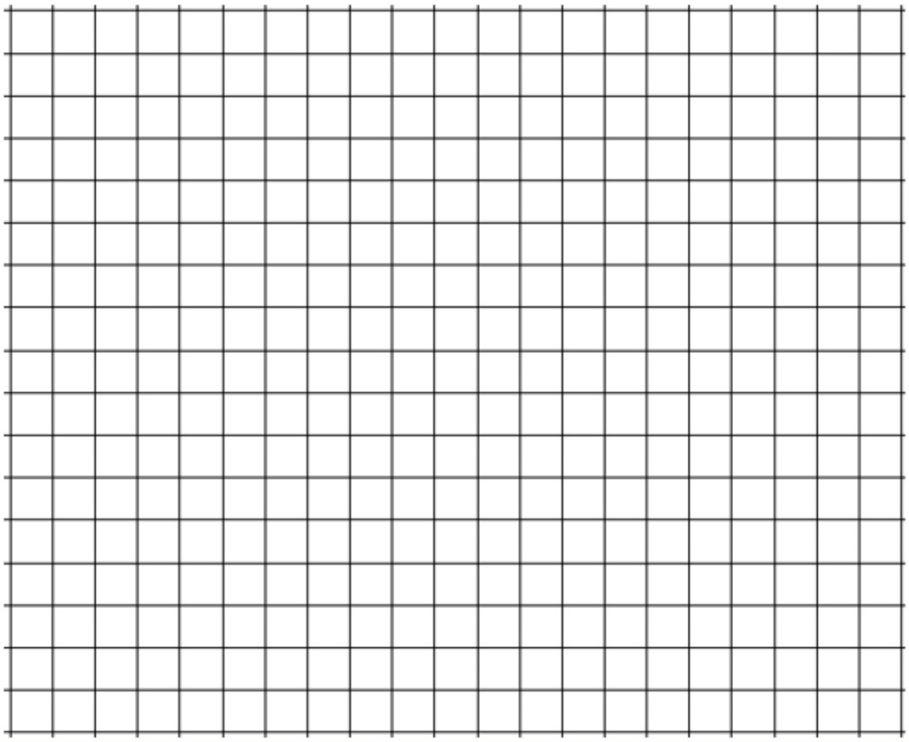
$$\begin{pmatrix} 0+3+-3 \\ 4+0+-4 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}$$

Unit 2 Review

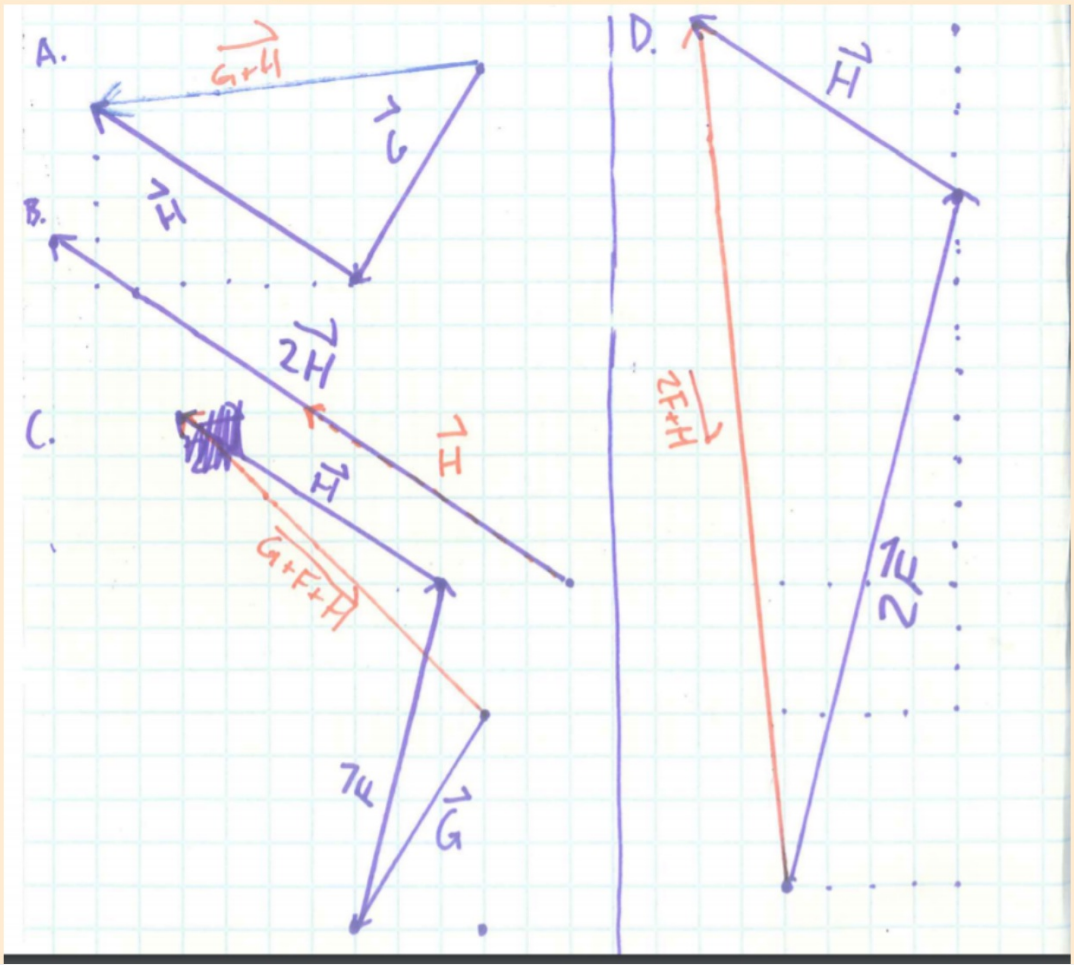
5. If vector F = $\begin{pmatrix} 2 \\ 8 \end{pmatrix}$ and vector G = $\begin{pmatrix} -3 \\ -5 \end{pmatrix}$ and vector H = $\begin{pmatrix} -6 \\ 4 \end{pmatrix}$, find:

Illustrate at least one of these on the grid below.

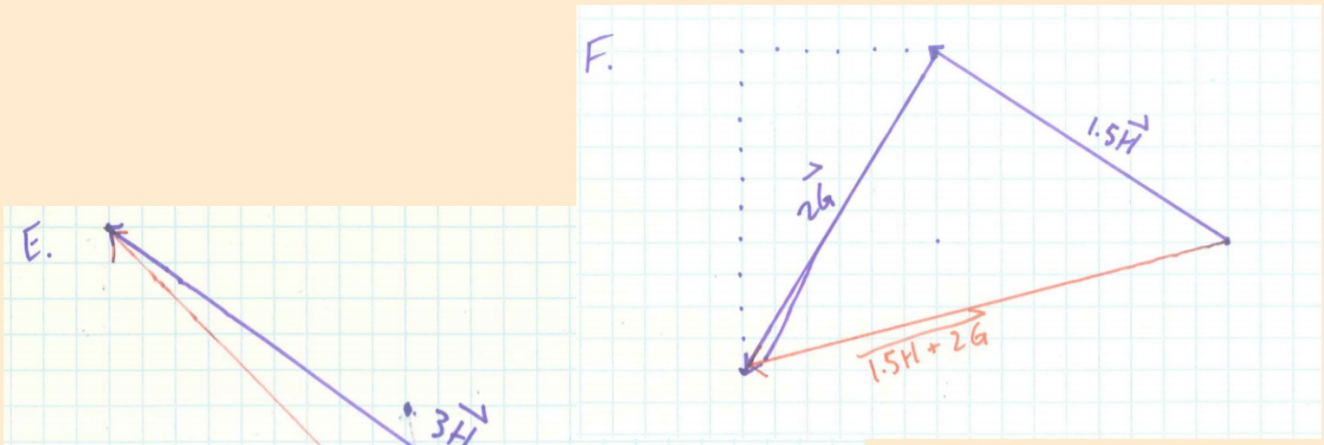
A. G + H
B. 2H
C. G + F + H
D. 2F + H
E. ½ F +3H
F. 1.5H + 2G

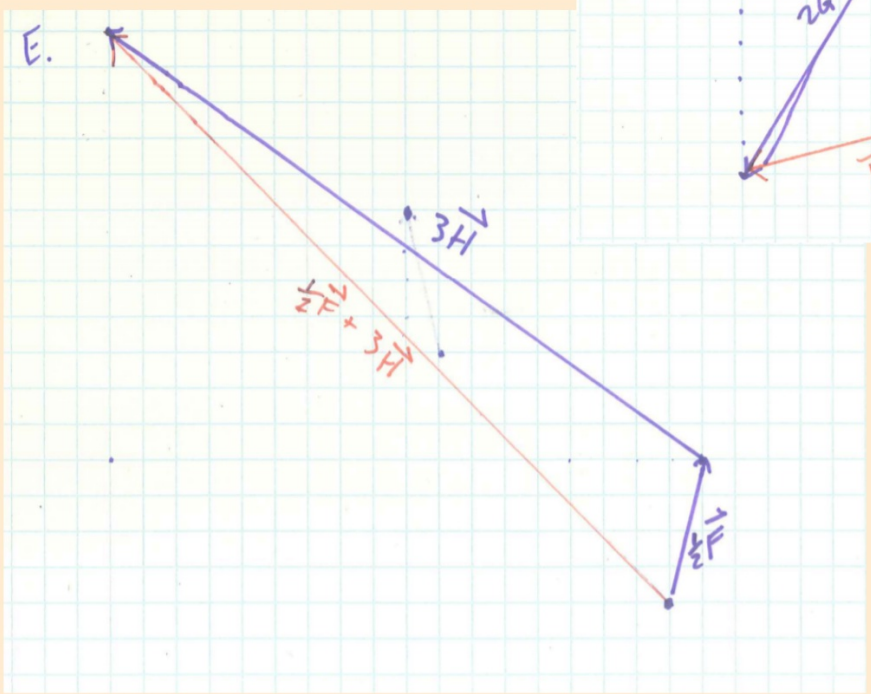


Unit 2 Review



Unit 2 Review





Exercises:

Study and review for your quiz!

*Please check answers online

*Afterschool W124