

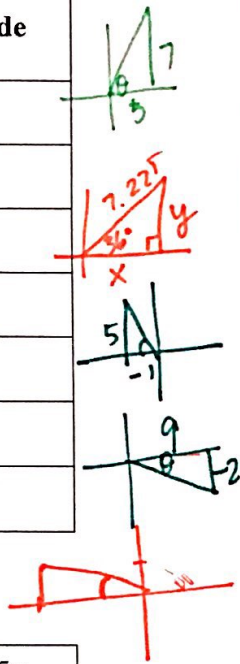
Name: Kay

May 1, 2018 Period: _____

Vector Components and Addition

Complete the table.

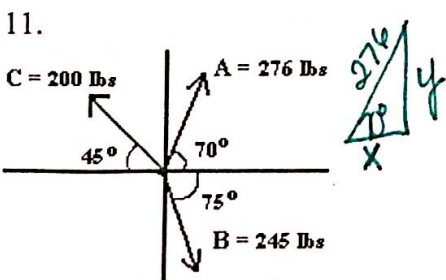
	Horizontal Component (a)	Vertical Component (b)	Component Form of Vector	Angle with Horizontal (θ)	Magnitude
1.	5	7	$\langle 5, 7 \rangle$	54.5°	8.6
2.	8	14	$\langle 8, 14 \rangle$	60.3°	16.1
3.	5.9	4.3	$\langle 5.9, 4.3 \rangle$	36°	7.225
4.	-1	5	$\langle -1, 5 \rangle$	78.7°	5.1
5.	6.8	12.8	$\langle 6.8, 12.8 \rangle$	62°	14.5
6.	9	-2	$\langle 9, -2 \rangle$	-12.5°	9.2
7.	-8	4	$\langle -8, 4 \rangle$	26.6°	8.9



Use the vectors u and v to complete each row.

	u	v	$u + v$	$2u$	$5v$	$2u - 5v$
8.	$\langle 3, 4 \rangle$	$\langle -2, 1 \rangle$	$\langle 1, 5 \rangle$	$\langle 6, 8 \rangle$	$\langle -10, 5 \rangle$	$\langle 16, 3 \rangle$
9.	$\langle 0.5, -3 \rangle$	$\langle 5, 2 \rangle$	$\langle 5.5, -1 \rangle$	$\langle 1, -6 \rangle$	$\langle 25, 10 \rangle$	$\langle -24, -16 \rangle$
10.	$\langle 0, -3 \rangle$	$\langle -1, 1 \rangle$	$\langle -1, -2 \rangle$	$\langle 0, -6 \rangle$	$\langle -5, 5 \rangle$	$\langle 5, -11 \rangle$

Write each vector in component form and then add the vectors together.

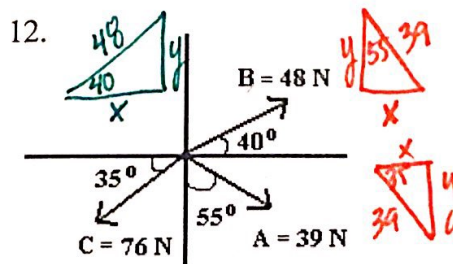


$$\vec{A} = \langle 94.4, 259.4 \rangle$$

$$\vec{B} = \langle 63.4, -236.7 \rangle$$

$$\vec{C} = \langle 141.4, 141.4 \rangle$$

$$\vec{A} + \vec{B} + \vec{C} = \langle 16.4, 164.1 \rangle$$

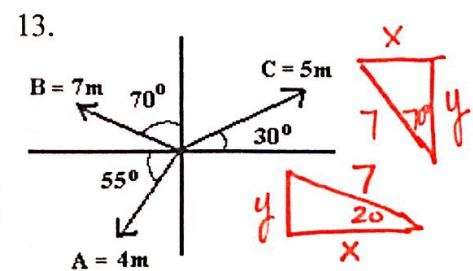


$$\vec{A} = \langle 91.9, -22.4 \rangle$$

$$\vec{B} = \langle 36.8, 30.9 \rangle$$

$$\vec{C} = \langle -62.3, -43.6 \rangle$$

$$\vec{A} + \vec{B} + \vec{C} = \langle 6.4, -35.1 \rangle$$



$$\vec{A} = \langle -2.3, -3.3 \rangle$$

$$\vec{B} = \langle -6.6, 2.4 \rangle$$

$$\vec{C} = \langle 4.3, 2.5 \rangle$$

$$\vec{A} + \vec{B} + \vec{C} = \langle -4.6, 1.6 \rangle$$