

CUT & PASTE ACTIVITY

COMPONENT FORM,
Magnitude & Direction (of Vectors)

Directions: Identify the component form, magnitude, and direction of each vector.

	INITIAL AND TERMINAL POINT	COMPONENT FORM
A	\overline{AB} with $A(-9, -10)$ and $B(-3, 2)$	9 $\langle -7, 9 \rangle$
B	\overline{PQ} with $P(-2, 1)$ and $Q(-5, -7)$	1 $\langle -3, -8 \rangle$
C	\overline{UV} with $U(5, -6)$ and $V(-7, -2)$	7 $\langle -9, 1 \rangle$
D	\overline{JK} with $J(-9, -5)$ and $K(-3, -9)$	2 $\langle 5, 8 \rangle$
	\overline{RS} with $R(-6, 3)$ and $S(-5, -5)$	15 $\sqrt{157}$
		4 208.61°
		10 $\sqrt{82}$

COMPONENT FORM

Magnitude & Direction

Created by: ALL THINGS ALGEBRA®

VECTORS:

Component Form, Magnitude, and Direction

Cut & Paste Activity

Objective: Students will practice identifying the component form, magnitude, and direction of a vector given its initial and terminal point with this cut and paste activity. There are 9 total vector given in which students need to identify each part.

Activity Directions: Distribute both the organizer and the page with the component forms, magnitudes, and directions to each student. Students cut out the 27 pieces and organize them on the organizer to correctly give the component form, magnitude, and direction of each given vector. They can paste their solutions down. The numbers on the boxes will make it easier to grade. I recommend having students organize their work on a separate sheet of paper, then staple it to their organizer once completed.

INITIAL AND TERMINAL POINT		COMPONENT FORM	MAGNITUDE	DIRECTION
A	\overline{AB} with $A(-9, -10)$ and $B(-3, 2)$			
B	\overline{PQ} with $P(-2, 1)$ and $Q(-5, -7)$			
C	\overline{UV} with $U(5, -6)$ and $V(-7, -2)$			
D	\overline{JK} with $J(-9, -5)$ and $K(-3, -9)$			
E	\overline{RS} with $R(4, -6)$ and $S(-5, -5)$			
F	\overline{FG} with $F(-3, -5)$ and $G(2, 3)$			
G	\overline{YZ} with $Y(7, -6)$ and $Z(0, 3)$			
H	\overline{LM} with $L(-9, -1)$ and $M(-4, -3)$			
I	\overline{CD} with $C(10, 0)$ and $D(-1, -6)$			

1	$\langle -3, -8 \rangle$	10	$\sqrt{82}$	19	161.57°
2	$\langle 5, 8 \rangle$	11	$2\sqrt{13}$	20	127.87°
3	$\langle 6, -4 \rangle$	12	$\sqrt{73}$	21	208.61°
4	$\langle -11, -6 \rangle$	13	$\sqrt{130}$	22	173.66°
5	$\langle 6, 12 \rangle$	14	$4\sqrt{10}$	23	338.2°
6	$\langle 5, -2 \rangle$	15	$\sqrt{157}$	24	63.43°
7	$\langle -9, 1 \rangle$	16	$\sqrt{89}$	25	57.99°
8	$\langle -12, 4 \rangle$	17	$6\sqrt{5}$	26	249.44°
9	$\langle -7, 9 \rangle$	18	$\sqrt{29}$	27	326.31°