

Example #2 p. 2 Ch. 9

Find the components of v having
 $|v| = 14.5$ and $\theta = 220^\circ$

Find the **horizontal** component

$$|v| = 14.5 \text{ and } \theta = 220^\circ$$

- The horizontal component is the x component which is given by $a = |v| \cos \theta$

$$a = 14.5 \cos 220^\circ \approx -11.1$$

Find the **vertical** component

$$|v| = 14.5 \text{ and } \theta = 220^\circ$$

- The vertical component is the y component which is given by $b = |v| \sin \theta$

$$b = 14.5 \sin 220^\circ \approx -9.3$$

Thus, v is

$$v = \langle -11.1, -9.3 \rangle$$