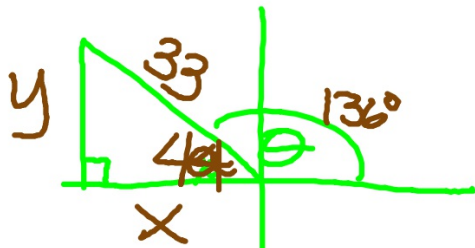


$$\begin{aligned} 32 \quad \|V\| &= 33 \\ \theta &= 136^\circ \end{aligned}$$



$$\cos 44^\circ = \frac{x}{33}$$

$$33 \cos 44^\circ = x$$

$$V = \|V\| \cos \theta i + \|V\| \sin \theta j$$

$$V = 33 \cos 136^\circ i + 33 \sin 136^\circ j$$

$$V = -23.7 i + 22.9 j$$

$$\langle -23.7, 22.9 \rangle$$

$$25. \quad u \langle 2, 1 \rangle$$

$$2i + j \qquad \frac{2}{\sqrt{5}}i + \frac{1}{\sqrt{5}}j$$

$$\frac{\langle 2, 1 \rangle}{\sqrt{4+1}} = \left\langle \frac{2}{\sqrt{5}}, \frac{1}{\sqrt{5}} \right\rangle$$

$$\textcircled{34} w = \langle -1, 2 \rangle$$

$$\|w\| = \sqrt{1+4}$$

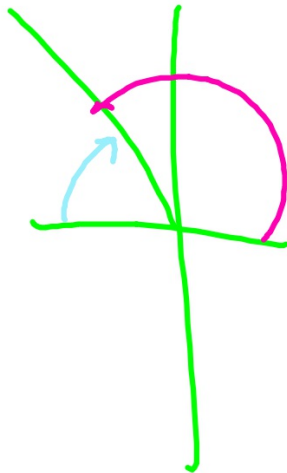
$$\|w\| = \sqrt{5}$$

$$\tan \theta = \frac{2}{-1}$$

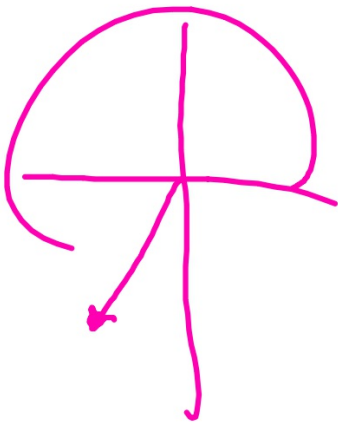
$$\theta = \tan^{-1}(-2)$$

$$\theta = -63.4^\circ$$

$$\frac{+180.0^\circ}{116.6^\circ}$$



36 $\langle -3, -5 \rangle$



$$\tan \theta = \frac{5}{3}$$

$$\theta = \tan^{-1}\left(\frac{5}{3}\right)$$

$$\theta = 59.0^\circ$$

$$+ 180$$

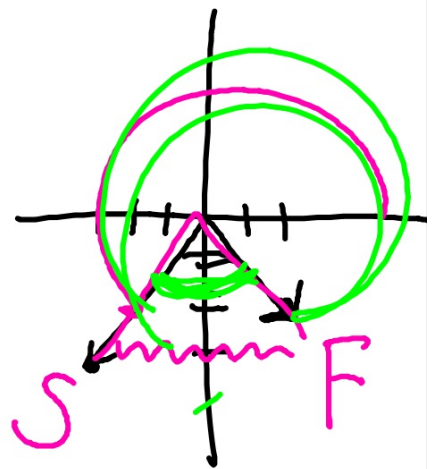
$$239.0^\circ$$

$$u = \langle 2, -2 \rangle \quad v = \langle -3, -3 \rangle$$

$$\cos \theta = \frac{6 + (6)}{\text{~~~~~}}$$

$$\cos \theta = 0$$

$$\theta = 90^\circ / 270^\circ$$



$$16. \quad u = \langle 5, 2 \rangle$$

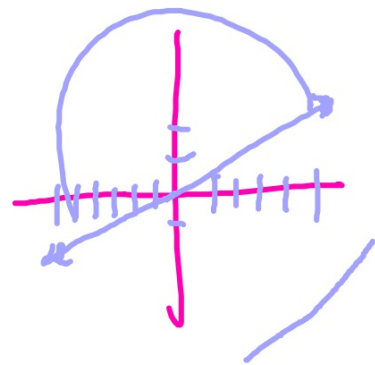
$$v = \langle -6, -1 \rangle$$

$$\cos \theta = \frac{-30 + (-2)}{\sqrt{25+4} \sqrt{36+1}}$$

$$\cos \theta = \frac{-32}{\sqrt{29} \sqrt{37}}$$

$$\theta = \cos^{-1} \left(\frac{-32}{\sqrt{29} \sqrt{37}} \right)$$

$$\theta = 167.7^\circ$$



22. $\langle -3, 8 \rangle$

$\langle -1, -9 \rangle$

$$\cos\theta = \frac{3 + (-72)}{\sqrt{9+64} \sqrt{1+81}} = \frac{-69}{\sqrt{73} \cdot \sqrt{82}}$$

