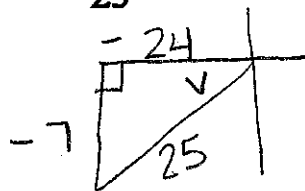
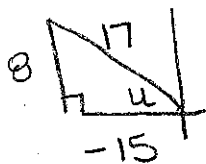


Warmup 3: Find the exact value  $\cos(u-v)$  if

$$\sin u = \frac{8}{17} \text{ when } \frac{\pi}{2} < u < \pi \text{ and } \cos v = -\frac{24}{25} \text{ when } \pi < v < \frac{3\pi}{2}$$



$$\cos(u-v) = \cos u \cos v + \sin u \sin v$$

$$= \frac{-15}{17} \cdot \frac{-24}{25} + \frac{8}{17} \cdot \frac{-7}{25}$$

$$\frac{360}{425} + \frac{-56}{425}$$

$$\boxed{\frac{304}{425}}$$