42. $\sin^2 t \cdot \cos t$ is positive in quadrant IV because $\sin^2 t$ is always positive and $\cos t$ is positive in quadrant IV.

44. $\cos t \cdot \sec t$ is positive in any quadrant, since $\cos t \cdot \sec t = \cos t \cdot \frac{1}{\cos t} = 1$, provided $\cos t \neq 0$.

46. quadrant III   48. quadrant II