32. (a) With a = 17.0 m and θ = 56.0° we find $a_x = a \cos \theta$ = 9.51 m.

(b) Similarly, $a_y = a \sin \theta$ = 14.1 m.

(c) The angle relative to the new coordinate system is θ' = (56.0° – 18.0°) = 38.0°. Thus, $a_x' = a\cos\theta' = 13.4$ m.

(d) Similarly, a_y' = a sin θ' = 10.5 m.