

57. Relative to the car the velocity of the snowflakes has a vertical component of 8.0 m/s and a horizontal component of $50\text{ km/h} = 13.9\text{ m/s}$. The angle θ from the vertical is found from

$$\tan \theta = v_h/v_v = (13.9\text{ m/s})/(8.0\text{ m/s}) = 1.74$$

which yields $\theta = 60^\circ$.