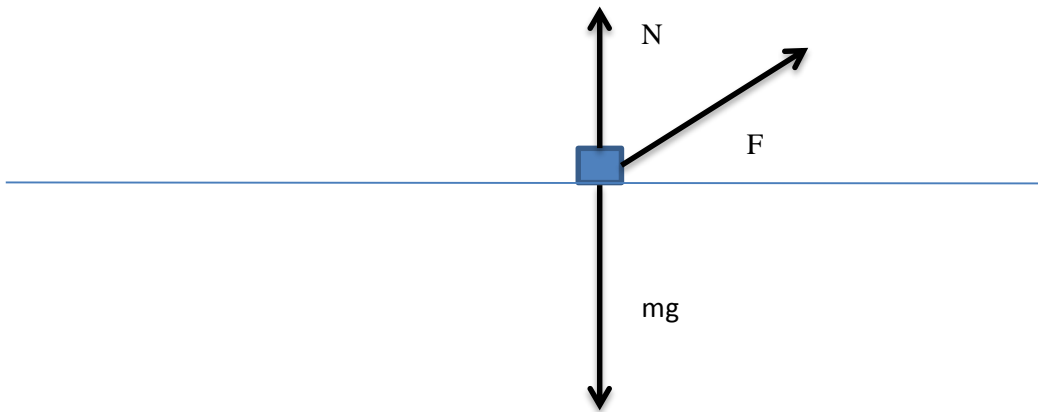


Answer on Question #51938, Physics, Other

Question:

A child pulls on a 90 N wagon with a force of 100 N at 37° above the horizontal. Calculate the acceleration of the wagon. Assume that friction is negligible

Answer:



Newton's second law of motion:

$$ma = F \cos \alpha$$

$$N + F \sin \alpha = mg$$

Acceleration equals:

$$a = \frac{F \cos \alpha}{m} = 0.89 \frac{m}{s^2}$$

Answer: $0.89 \frac{m}{s^2}$