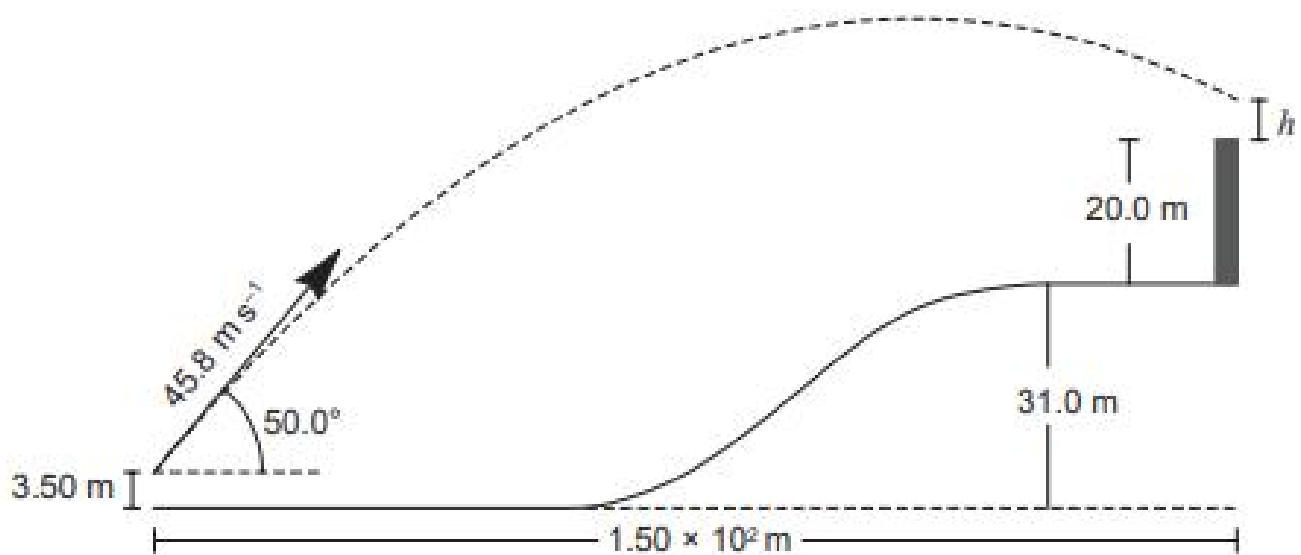


Question 5

(6 marks)



A catapult is $1.50 \times 10^2 \text{ m}$ away from a 20.0 m high castle wall on top of a 31.0 m hill. It launches a metal ball at 50.0° to the horizontal 3.50 m above the ground at 45.8 m s^{-1} . Calculate how far above the castle wall the ball passes (h).

Answer: _____ m