

5.) A cat leaps off a building (the crowd goes wild with applause) of height 30.0 m . If it left the building with a horizontal velocity of $+1.0\frac{\text{m}}{\text{s}}$ will it land safely on some garbage bags 5.0 m from the base of the building?

6.) What will be the vertical velocity of the cat above at the exact moment of impact?

7.) A baseball is hit at $30.0\frac{\text{m}}{\text{s}}$ on an angle of 40° , what is its maximum height?

8.) A stunt person jumps at $+5.0\frac{\text{m}}{\text{s}}$ horizontally, if she just lands on an airbag 24.2 m from the base of a building how high was the building?

Bonus - A kid throws a rock on a 45° angle with velocity 10.0 m/s off a 10.0 m high cliff. How far from the base of the cliff will the rock land?