On a spacetime diagram, a motionless object at x=1m will appear as:

- (a) A point at x=1m
- (b) A horizontal line
- (c) A vertical line
- (d) The x-axis
- (e) The t-axis

On a spacetime diagram, a motionless object at x=1m will appear as:

(a) A point at x=1m this would be an event; objects exist for longer than just an instant
(b) A horizontal line this would be an object going infinitely fast ??
(c) A vertical line which would intersect the x-axis at x=1m
(d) The x-axis see (b)

(e) The t-axis this is a motionless object at x=0, not x=1m.

An airplane flying upwards at an angle at a constant speed is an inertial frame of reference:

(a) YES
(b)
(c)
(d)

(e) NO

An airplane flying upwards at an angle at a constant speed is an inertial frame of reference:

(a) YES it's moving with a constant speed wrt the ground. A fixed tilt does not matter.
 (b)



## (d)

## (e) NO