

Answer #54

The answer is (a): Gwen must drop the ball when she is at a location to the left of her position at the time of the photograph below. Exactly where she must drop the ball depends on how fast she is walking. A video of the action can be seen by clicking your mouse on the photograph.



Notice that dropping the ball *without changing its velocity in the horizontal direction* has the result that the ball will move along a with the walker and remain under the hand from which it was released until it goes into the bucket. The horizontal speed of the ball and the walker is the same. Use your mouse to move the video along frame by frame to see this in slow motion.

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