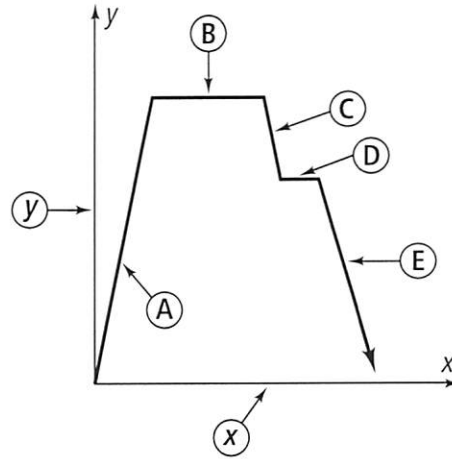


# Increasing and Decreasing Intervals

## Launch

The graph represents the number of people in an outdoor stadium for a baseball game. Tell what the  $x$ - and  $y$ -axes represent. Tell what happens during parts A to E to the people at the game.



$x$ :

$y$ :

A:

B:

C:

D:

E:

## Reflect

How could a graph such as this be valuable to the owners of the baseball team? Explain.

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**Sketch a graph of the situations. Be sure to include appropriate scales and labels.**

1. Darryl lives on the third floor of his apartment building. His bike is locked up outside on the ground floor. At 3 pm, he leaves to go run errands, but as he is walking down the stairs, he realizes he forgot his wallet. He goes back up the stairs to get it and then leaves again. As he tries to unlock his bike, he realizes that he forgot his keys. One last time, he goes back up the stairs to get his keys. He then unlocks his bike, and he is on his way at 3:10 pm.

2. Julie gets into an airplane and waits on the tarmac for 2 minutes before it takes off. The airplane climbs to 10,000 feet over the next 15 minutes. After 2 minutes at that constant elevation, Julie jumps and free falls for 45 seconds until she reaches a height of 5,000 feet. Deploying her chute, she slowly glides back to Earth over the next 7 minutes where she lands gently on the ground.

# Increasing and Decreasing Intervals

## Launch

The graph represents the number of people in an outdoor stadium for a baseball game. Tell what the x- and y-axes represent. Tell what happens during parts A to E to the people at the game.

x:

Time

y:

People at Game

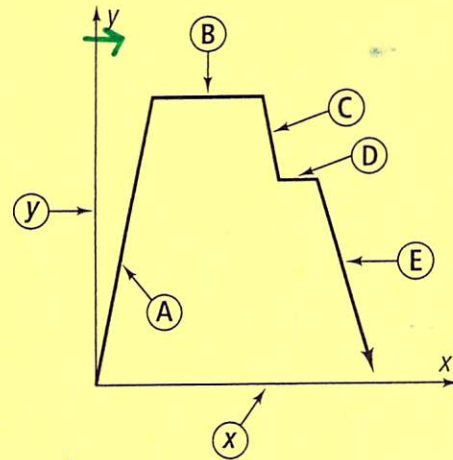
A: People are arriving at game

B: Everyone is at the game. Game Begins

C: Some people leave

D: People stop leaving

E: Everybody leaves



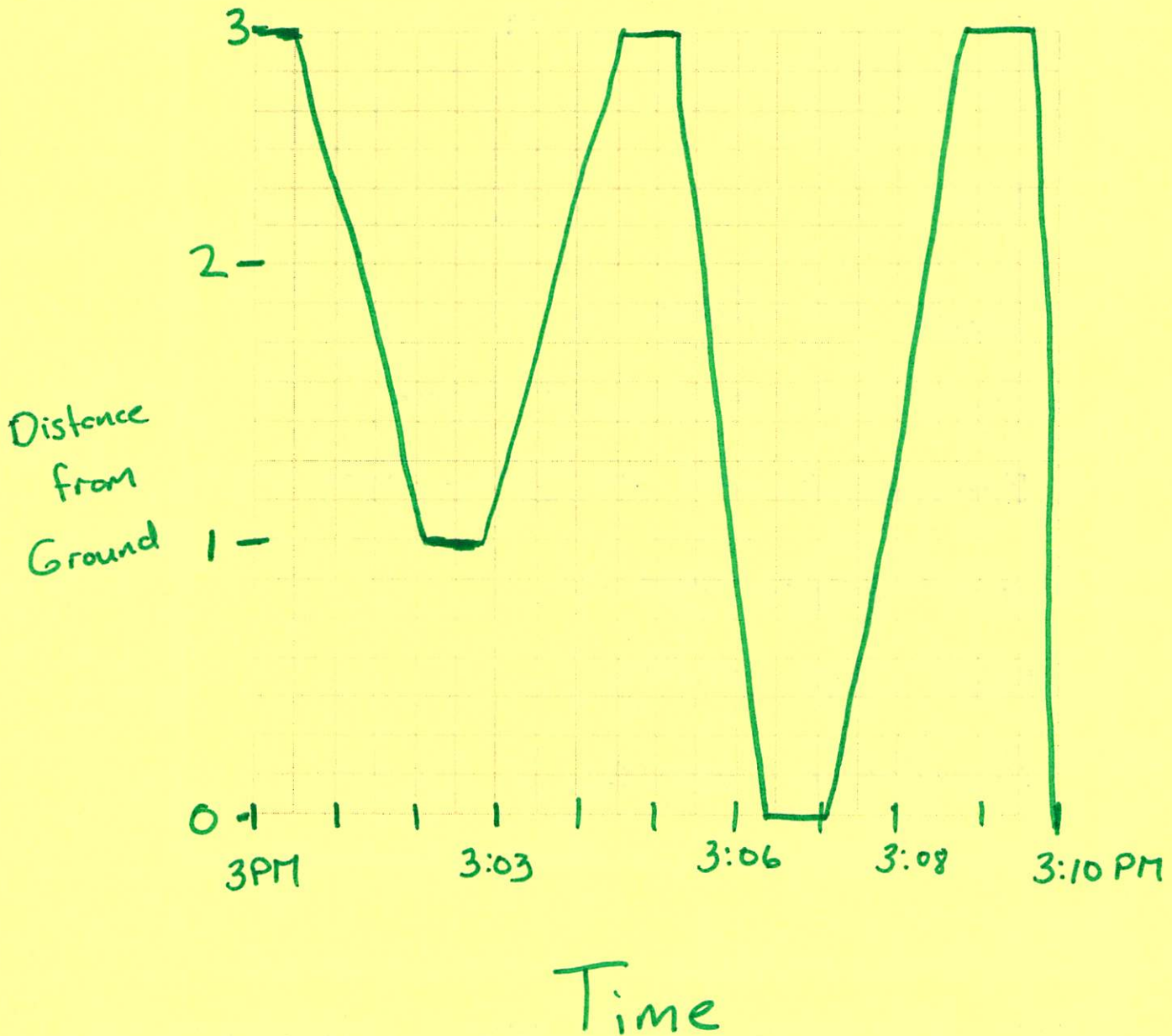
## Reflect

How could a graph such as this be valuable to the owners of the baseball team? Explain.

- Give information about overall attendance
- Give info concerning when and possibly why spectators are leaving

Sketch a graph of the situations. Be sure to include appropriate scales and labels.

1. Darryl lives on the third floor of his apartment building. His bike is locked up outside on the ground floor. At 3 pm, he leaves to go run errands, but as he is walking down the stairs, he realizes he forgot his wallet. He goes back up the stairs to get it and then leaves again. As he tries to unlock his bike, he realizes that he forgot his keys. One last time, he goes back up the stairs to get his keys. He then unlocks his bike, and he is on his way at 3:10 pm.



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