

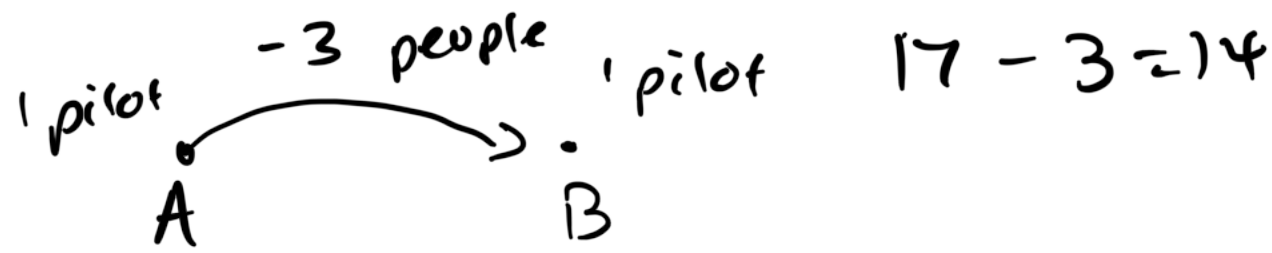


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### Question 10

A small plane flies to and from towns A and B, and can only carry 3 passengers and a pilot altogether. A group of 17 people need to use this small plane to fly from town A to town B. Within this group, only James and Erica are trained pilots.

What is the minimum number of trips required? Flying from town A to town B counts as a trip, and flying from town B to town A also counts as a trip.



For -3 people, need 2 trips

For 17 people, 6 lots of -3

Total trips =  $12 - 1 = 11$

- ☐ 8
  - ☐ 9
  - ☐ 10
  - ☐ 11



**Correct answer:**

11



**Hint:**

Note that it does not matter who flies as the pilot. In each trip, only 3 passengers can be carried, so the person who is selected as the pilot will need to fly 16 people from town A to town B.

$16 \div 3 = 5 \text{ r } 1$ , which means the plane needs to fly from town A to town B 6 times (rounded up). The last trip does not need to fly back to town A, so the plane is only flown 5 times from town B to town A. So, number of trips required is  $6 + 5 = 11$  trips.

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