FLUENCY PRACTICE: Solving Word Problems by Graphing System of Equations
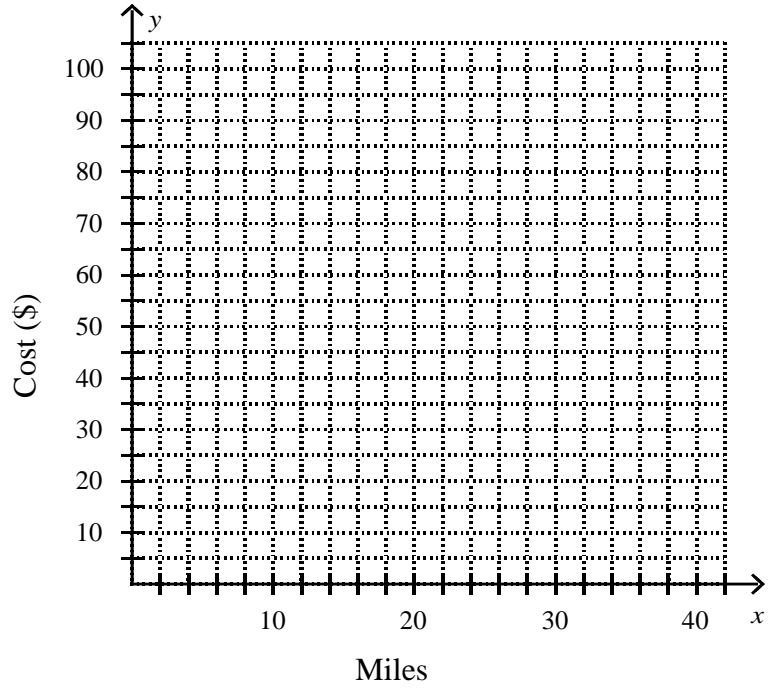
Name:_____   Period:_____

Directions: Graph each system of equations to find the intersection.

1.   Roger's car broke down and needs to be towed to a repair shop. One towing company charges a flat fee of $60 and $1 a mile. Another company charges a flat fee of $30 and $2 a mile. What are the linear functions that represent this situation?
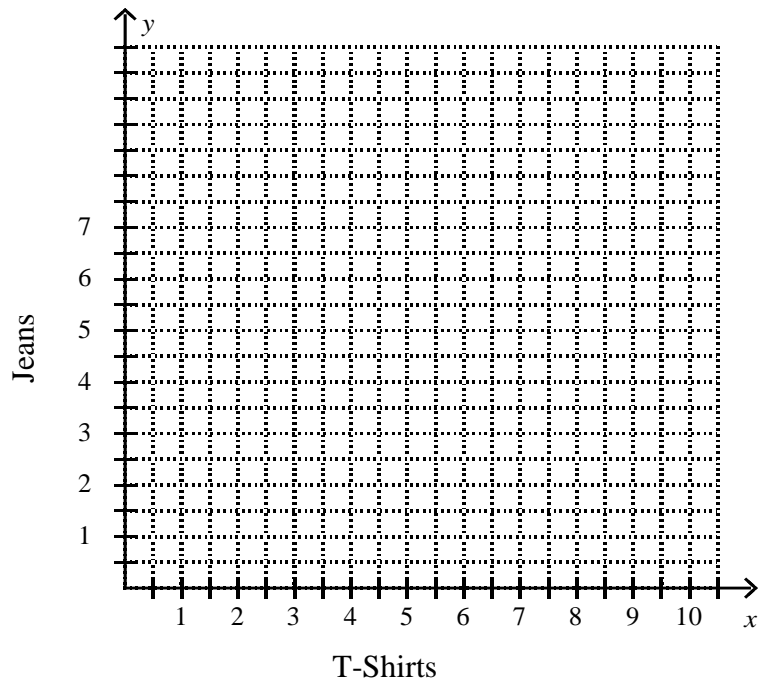
Graph the linear functions.

When will the charges for both companies be the same?

2.   Nick has $150 to spend on t-shirts and jeans. One store has jeans on sale for $30 and t-shirts for $15. He wants to buy a total of 7 items. What are the linear functions that represent this situation?
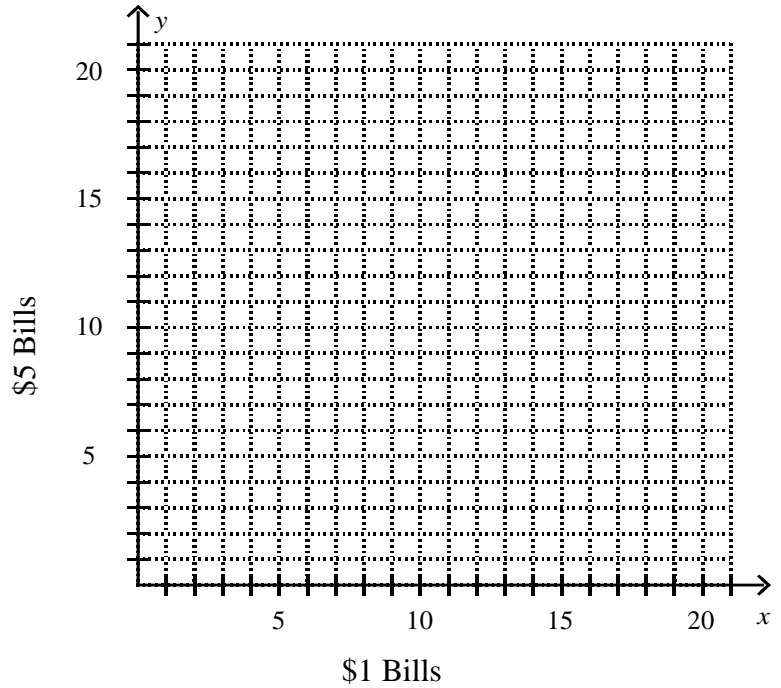
Graph the linear functions.

How many pairs of jeans and t-shirts should Nick buy?

3. Fred has $47 consisting of $1 and $5 bills. He has 19 bills. What are the linear functions that represent this situation?
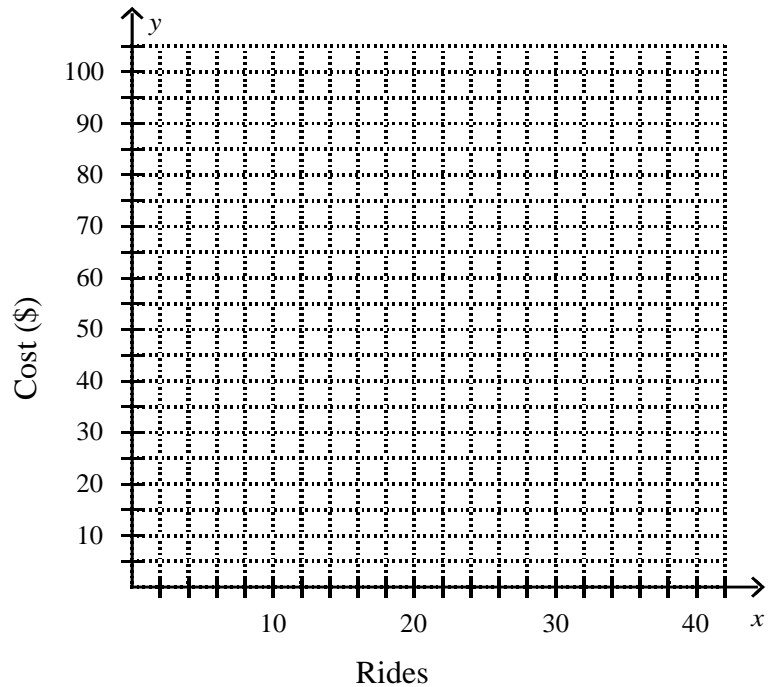
Graph the linear functions.

How many of each dollar bill does Fred have?

$5 Bills

$1 Bills

4. Tim rides the bus to and from work every day. There are 2 options for Tim to pay for the bus. He can pay $3 each time he rides the bus or by a bus pass that costs $60 and just pay a dollar every time he rides the bus. What are the linear functions that represent this situation?
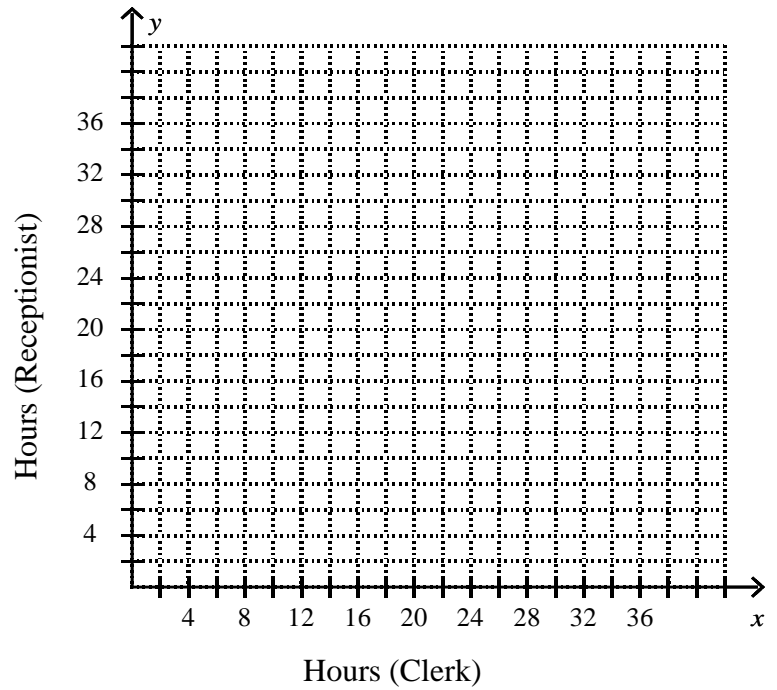
Graph the linear functions.

How many times riding the bus will it cost Tim the same amount?

Cost ($)

Rides

5. Tammy works two jobs. As a clerk she earns $8 an hour. As a receptionist she makes $10 an hour. One week she worked 32 hours and earned $296. What are the linear functions that represent this situation?
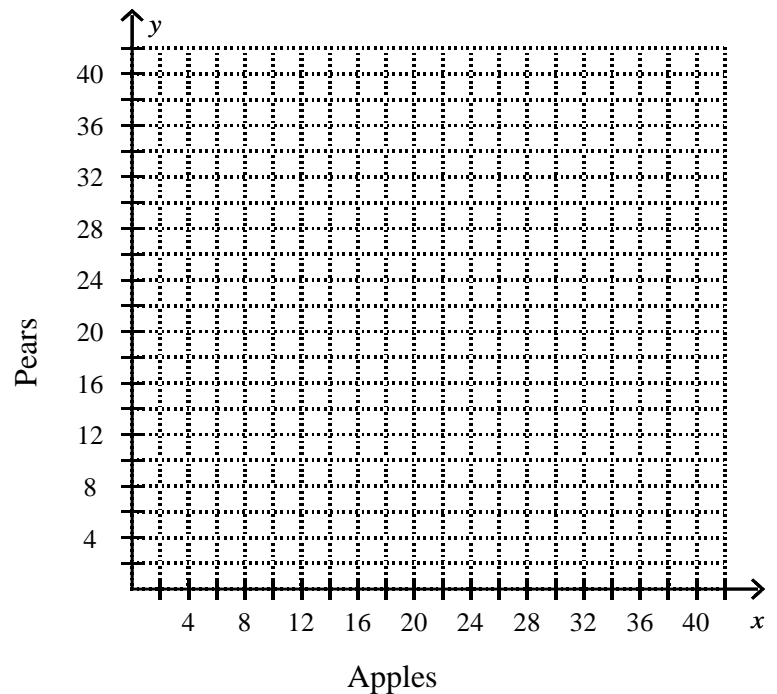
Graph the linear functions.

How many hours did she work at each job that week?

6. Brian sold fruit at his stand. Apples cost $.40 and pears cost $.50 each. In an afternoon he sold 40 pieces of fruit and made $17.50. What are the linear functions that represent this situation?

Graph the linear functions.

How many of each fruit did he sell?