1. The perimeter of a rectangle is to be no greater than 300 in., and the length must be 125 in. Find the maximum width of the rectangle.

|  |  |  |
| --- | --- | --- |
|  |  | 25 in. |
|  |  | 175 in. |
|  |  | 20 in. |
|  |  | 50 in. |

2. An arithmetic student needs an average of 70 or more to receive credit for the course. She scored 82, 64, and 98 on the first three exams. Write an inequality representing the score she must get on the last test to receive credit for the course.

|  |  |  |
| --- | --- | --- |
|  |  | x >= 41 |
|  |  | x >= 38 |
|  |  | x >= 34 |
|  |  | x >= 36 |

3. At 1:00 p.m., a car leaves a city and travels north at a rate of 55 mi/h. An hour later, a second car leaves the city and travels south at a rate of 60 mi/hr. At what time will the two cars be 285 miles apart?

|  |  |  |
| --- | --- | --- |
|  |  | 2:00 p.m. |
|  |  | 3:00 p.m. |
|  |  | 4:00 p.m. |
|  |  | 5:00 p.m. |

4. Upon returning to Europe.from the U.S., Bob exchanged his remaining 130 US Dollars for 103.61 EUROs. What exchange rate did he receive?

|  |  |  |
| --- | --- | --- |
|  |  | 1.347 EUROs for each U.S. Dollar |
|  |  | 1.255 EUROs for each U.S. Dollar |
|  |  | 0.742 EUROs for each U.S. Dollar |
|  |  | 0.797 EUROs for each U.S. Dollar |

5. Translate the following statement into an algebraic equation. Let x represent the number. 6 times a number is 14 more than that number.

|  |  |  |
| --- | --- | --- |
|  |  | 6x + 14 = x |
|  |  | 6 = 14x + x |
|  |  | 6x = x + 14 |
|  |  | 6x = 14x |

6. Upon returning to the U.S. from Canada, Burgette exchanged her remaining 150 Canadian Dollars for 134.53 U.S. Dollars. What exchange rate did she receive?

|  |  |  |
| --- | --- | --- |
|  |  | 0.893 U.S. Dollars for each Canadian Dollar |
|  |  | 0.897 U.S. Dollars for each Canadian Dollar |
|  |  | 1.119 U.S. Dollars for each Canadian Dollar |
|  |  | 1.115 U.S. Dollars for each Canadian Dollar |

7. At 9:00 a.m. a truck leaves the truck yard and travels west at a rate of 45 mi/hr. Two hours later, a second truck leaves along the same route, traveling at 55 mi/hr. When will the second truck catch up to the first?

|  |  |  |
| --- | --- | --- |
|  |  | 8:00 p.m. |
|  |  | 11:00 p.m. |
|  |  | 10:00 p.m. |
|  |  | 9:00 p.m. |

8. How many pounds of hamburger that costs $1.60 per pound must be mixed with 70 pounds of hamburger that costs $2.10 per pound to make a mixture that costs $1.70 per pound. [ Write equation and solve equation (Show work)].

9. A stamp collection consists of 3, 8, and 15 cent stamps. The number of 8 cent stamps is one less than triple the number of 3 cent stamps. The number of 15 cent stamps is six less  than the number of  8 cent stamps. The total value of all the stamps is $2.47. Find the number of 8 cent stamps in the collection[ Write equation and solve equation (Show work)].

10. A cyclist traveled at a rate of 32 mph to visit a nearby town. The cyclist averaged 10 mph on the return trip. If the round trip took 6.3 hours, find the distance to the nearby town. [[ Write equation and solve equation (Show work)].