

LESSON
2-5

Problem Solving
Algebraic Proof

1. Because of a recent computer glitch, an airline mistakenly sold tickets for round-trip flights at a discounted price. The equation $n(p + t) = 3298.75$ relates the number of discounted tickets sold n , the price of each ticket p , and the tax per ticket t . What was the discounted price of each ticket if 1015 tickets were sold and the tax per ticket was \$1.39? Solve the equation for p . Justify each step.

2. The equation $C = 7.25s + 15.95a$ describes the total cost of admission C to the aquarium. How many student tickets were sold if the total cost for the entire class and 6 adults was \$298.70? Solve the equation for s . Justify each step.

s = number of student tickets
 a = number of adult tickets
 C = total cost of admission

Refer to the figure. Choose the best answer.

3. Which could be used to find the value of x ?
 - A Segment Addition Postulate
 - B Angle Addition Postulate
 - C Transitive Property of Congruence
 - D Definition of supplementary angles
4. What is $m\angle SQR$?
 - F 28°
 - G 29°
 - H 61°
 - J 62°

