

1. A number increased by 8 is 15. Find it.

Let x = the number

$$x + 8 = 15$$

Answer: $x = 7$

2. Five times a number is 45.

$$5x = 45$$

Answer: $x = 9$

3. Tickets cost \$12 each plus a \$5 fee. Total was \$53. How many tickets?

$$12t + 5 = 53$$

$$12t = 48$$

Answer: 4 tickets

4. Twice a number decreased by 7 is 19.

$$2x - 7 = 19$$

$$2x = 26$$

Answer: $x = 13$

5. A rectangle has perimeter 36 and length 10. Find the width.

$$2(10) + 2w = 36$$

$$20 + 2w = 36; 2w = 16$$

Answer: $w = 8$

6. Gym: \$25 to join plus \$15 per month. Total paid: \$115. How many months?

$$25 + 15m = 115$$

$$15m = 90$$

Answer: 6 months

7. Three consecutive integers add to 45. Find them.

$$x + (x+1) + (x+2) = 45$$

$$3x + 3 = 45; 3x = 42; x = 14$$

Answer: 14, 15, 16

8. You can spend at most \$50. A shirt costs \$18. How much is left for pants (p)?

$$18 + p \leq 50$$

Subtract 18

Answer: $p \leq 32$

9. Fair: \$8.50 admission plus \$2.25 per ride, with a \$30 budget. Max rides? ★ challenge

$$8.50 + 2.25r \leq 30$$

$$2.25r \leq 21.50$$

$$r \leq 9.55... - \text{must be whole}$$

Answer: 9 rides

10. Maria is 3 more than twice Jose's age. Their ages sum to 33. Find both. ★ challenge

$$\text{Jose} = j, \text{ Maria} = 2j + 3$$

$$j + 2j + 3 = 33$$

$$3j = 30; j = 10$$

Answer: Jose 10, Maria 23