

Pre-Algebra: Worksheet 7: Solving Equations

1 Worksheet

Solve:

$$\frac{p-7}{12} = -10 \quad (1)$$

$$9z - 45 = 45 \quad (2)$$

$$9z - 4z + 4 = 24 \quad (3)$$

$$3n + 5 + 12n = 35 \quad (4)$$

$$-2(x + 6) = 32 \quad (5)$$

$$3(x + 2) = 4 - x \quad (6)$$

$$n + 3 > 12 \quad (7)$$

$$2(x - 4) < -4x \quad (8)$$

$$-4x > 20 \quad (9)$$

$$6(x + 2) - 8x > 6 + x \quad (10)$$

Translate into an equation:

1. The sale price of \$125 for the camera is \$5 less than one third of the original price.
2. The 468 students in the school are six less than 22 times the number of students taking algebra.

3. Rachel's current salary, \$50 per week, is twice her starting salary increased by \$10.
4. The 37 students on the bus are three times the number in the van increased by three.
5. Eight times an integer n is less than 48.
6. The number of pebbles on the beach is at least five times greater than the number of trees in the forest.

Write the appropriate equation and solve:

1. Eve bought 3 tickets to a play. She paid \$29 for the tickets, including a \$2 tax. Find the price of each ticket.
2. The cost of a grapefruit is 25% *more* this week than it was last week. If the price of grapefruit is \$5 this week, what was the price last week?
3. The cost of a grapefruit is 25% *less* this week than it was last week. If the price of grapefruit is \$3 this week, what was the price last week?
4. The equation for the perimeter of a rectangle is that the perimeter P is the sum of twice the length l and twice the width w , or $P = 2l + 2w$. If the length of a field is 10m and the width is 5m, what is the perimeter?
5. Another perimeter problem. If 50m of wire are needed to build a fence for a 9m wide rectangular field, how long is the field?
6. One hour ago it was three times as long after noon as it was until midnight. What time is it?