

Oct. 15 Worksheet

1. Solve $4 - 3(x + 5) = (x/4) - 7$

2. Solve $5 - 4(x - 3) \geq (x/3) + 8$

3. The formula for converting temperature from Celsius (C) to Fahrenheit (F) is $F = (9/5)C + 32$.

What temperature range in Celsius corresponds to the range from 50F to 86F

4. A financial analyst for a new tech startup has determined that the total cost to produce and sell x units of a new gadget is given by the function $C = 45x + 2500$. The revenue from selling x units is given by the function $R = 120x$.

Find the values of x for which the company will break even or make a profit.

5. A small business sells artisanal candles. The variable cost for producing each candle is \$8.50, and the fixed cost for the manufacturing operation is \$3,000 per month. The business sells each candle for \$20.00.

How many candles need to be sold each month in order to break even/make a profit?

6. A local coffee shop sells freshly baked muffins. The variable cost to make each muffin is \$1.25, and the fixed cost for daily operations is \$200. The coffee shop sells each muffin for \$3.75.

How many muffins do they need to sell each day to break even or make a profit?