Activity 1.4a: Intersections of lines



Make sure to give both the x and y value.

3. Where do f(x) = 2x - 1 and h(x) = 5 - x intersect?

4. What is an equation of the line through (1, 1) and (4, 7)?

5. What is an equation of the line through (1,7) and (4,1)? (Where do the last two lines intersect?)

Name:

Activity 1.4b: Exam #1's old #4 and #5

4. The Fixit Company makes testing units for electrical circuits. The cost function for their manufacturing line is C = 5x + 7800, where x is the number of testing units produced per month, and C is measured in dollars. The testing units generate a revenue of \$8 each.

(a) Determine the linear profit function for the Fixit company, assuming they sell all that they make:

 $P = \underline{\qquad} \cdot x + \underline{\qquad}$

(b) Determine the break-even value for x and the break-even cost C at that value for x.

 $x = ___$ $C = ___$

5. In a free market, the supply equation for a supplier of corn is x = 40p + 200 where the price p is in dollars and x is in bushels. When the price is \$1 per bushel, the demand is 540 bushels. When the price goes up to \$10 per bushel, the demand drops to 0 bushels. Assuming the demand function is also linear, find the equilibrium price and the number of bushels supplied at that equilibrium price.

 $p = ___$ $x = __$

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3. What is the supply function if a producer will supply 280 bushels of corn at \$2 per bushel and 400 bushels of corn at \$5 per bushel? Make sure to label your variables and express your answer as a **supply function**.

Name: