

1) Katherine is deciding which catering company she should use for Mom's 50<sup>th</sup> birthday party. At Bashful's Birthday Blast there is a fee of \$20.00 and a charge of \$9.00 per person. At Bertha's Ballroom Blitz there is a fee of \$100 and a charge of \$5.00 per person. For how many people will the cost become equal? What is that cost?

- 2) Two companies sell stock shares on Wall Street. Losers Incorporated stock starts with a value of \$39.63 and loses \$0.08 for each new stockholder. The "Be Rich with Us" Corporation starts with a value of \$24.45 and gains \$0.03 in value for each new stockholder. At how many new stockholders will the value be equal? What is that value? (Solve by graphing)
- 3) Farmer Peter and Farmer Paula are picking apples from their apple trees. Farmer Peter has already picked 287 apples. Farmer Peter picks another 5 apples each minute. Farmer Paula has already picked 154 apples. Farmer Paula picks another 6 apples each minute. After how many minutes will the number of apples be the same? How many apples would each farmer have picked? (Solve by graphing and algebraically)

- 4) Ted and Tom are saving money. Tom has saved \$1,477 and saves 64 more dollars each pay day. Ted has saved \$948 and saves 87 more dollars each pay day. How many days until they have saved the same amount? How much would they have saved?
- 5) The Slow Fix auto shop charges \$28 for parts and \$48 per hour of labor. The We Work Cheaper auto shop charges \$59 for parts and \$44.90 per hour of labor. How many hours until they charge the same amount? What would that cost be?
- 6) Each month the Midwest cell phone company has an operating fee of \$28.55 and charges \$0.48 per minute of calls. Each month, the Drop-Yo-Call Corporation has an operating fee of \$59 and charges \$0.19 per minute of calls. After how many minutes would the charges be the same? How much would they both charge? (Solve by graphing)
- 7) Two countries are keeping track of the cost of a barrel of oil in their country. In country A, a barrel of oil costs of \$40.05 and the price increases \$0.08 each day. In country B, a barrel of oil costs \$48.74 and the price decreases \$0.03 each day. After how many days would the price be equal? What would that price be? (Solve by graphing)