

College Mathematics
 comparison of linear functions
 (solving linear equations/inequalities)

Under the Crystal-Clear phone plan, you pay \$17 each month plus 6 cents per minute.
 Under the Platinum Pin-drop plan, you pay \$49 each month plus 2 cents per minute.

- (a) If you talk 0 minutes in a month, how much do you pay under each plan?
 (b) How many minutes do you have to talk in a month so that you pay \$50 under the Crystal-Clear plan?
 (c) How many minutes do you have to talk in a month so that you pay \$50 under the Platinum Pin-drop plan?
 (d) How many minutes do you have to use in a month for the two plans to cost the same?
 (e) Under what conditions is Crystal-Clear the better plan?

symbolic:

$$C(n) = 17.00 + 0.06n$$

$$P(n) = 49.00 + 0.02n$$

numerical:

minutes	Crystal-Clear	Platinum Pin-drop
0	\$17.00	\$49.00
100	\$23.00	\$51.00
200	\$29.00	\$53.00
300	\$35.00	\$55.00
400	\$41.00	\$57.00
500	\$47.00	\$59.00
600	\$53.00	\$61.00
700	\$59.00	\$63.00
800	\$65.00	\$65.00
900	\$71.00	\$67.00
1000	\$77.00	\$69.00

graphical:

