1. **Classify each of the following situations as linear growth or exponential growth.**
   (a) Each banana costs you 19 cents.
   (b) Each additional minute you talk costs you 7 cents.
   (c) Each time you talk one more minute, your total bill is 5 times as big.
   (d) Each year, 170 people move into New Braunfels.
   (e) Each year, Angus gets a 8% raise.
   (f) Each year, Bea gets a $8000 raise.
   (g) Each year, the population of Newton triples.

2. Cyndi’s phone company charges 32 cents to connect a call and 6 cents per minute.
   (a) Write an equation giving Cyndi’s cost $C$ in terms of her talk time $T$.
   (b) If Cyndi makes a call lasting 49 minutes, how much will it cost her?
   (c) If Cyndi wants to spend less than 99 cents on a call, how long can she talk?

3. Dana’s phone company charged her $1.77 for a 30-minute call and $2.97 for a 60-minute call.
   (a) Assuming a linear cost function, write an equation giving Dana’s cost $C$ in terms of her talk time $T$.
   (b) If Dana makes a call lasting 45 minutes, how much will it cost her?
   (c) If Dana wants to spend less than $10.00 on a call, how long can she talk?

4. The population of Wheatsville is 25,000.
   (a) If the population increases by 3000 each year, what will the population be 6 years from now?
   (b) If the population increases by 3% each year, what will the population be 6 years from now?

5. Cyrus earns $6.80 per hour. Next year, he will earn $8.50 per hour.
   (a) Assuming linear growth, what will his pay rate be 9 years from now?
   (b) Assuming exponential growth, what will his pay rate be 9 years from now?