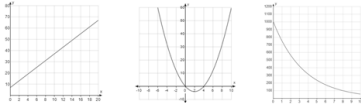


Unit 4 Review: Graphical Models

Example 1: Identify the type of graph being displayed below, be specific.



Example 2: For each survey, who do you think would be less biased in collecting data? Circle your selection.

- a) A survey on recycling rates for plastic bottles
 i) A bottled water manufacturer ii) A town's public works department
- b) A survey on people's opinions about health care
 i) A college student doing a project ii) A group of doctors

Example 3: Identify as many sampling techniques as you can.

1. Randomly select 1000 people from the phone book and ask them how many times they go to the gym each week.
2. Interview all the people who are waiting in line at the bank.
3. Interview all the people who are waiting in line at the bank.
4. Interview all the people who are waiting in line at the bank.
5. Interview all the people who are waiting in line at the bank.
6. Interview all the people who are waiting in line at the bank.
7. Interview all the people who are waiting in line at the bank.
8. Interview all the people who are waiting in line at the bank.
9. Interview all the people who are waiting in line at the bank.
10. Interview all the people who are waiting in line at the bank.

Example 3: Solve for x.

- a) $x^{\frac{2}{3}} = 9$ b) $3^n = 81$ c) $6^{2x+1} = 36^x$

Example 4: Suppose you invest \$500 at 6% per year, compounded annually. The value, A dollars, of your investment after n years is given by $A = 500(1.06)^n$.

a) Fill in the table to show how the amount of the investment grows and the first differences.

Year	2013	2014
Amount		
First Differences		

b) What type of growth does this represent?

Unit 5 Review: Algebraic Models

Example 1: Evaluate. No Decimals.

- a) $(2a^2b^3)^4$ if $a=1$, $b=-2$, and $c=3$. b) $(-27)^{\frac{2}{3}}$
- c) $\left(\frac{3}{4}\right)^{-2}$

Example 2: Write as a single power, then evaluate.

- a) $\frac{(-3)^2}{(-3)^{-1}}$ b) $\frac{2.09^5}{2.09^3}$