# Creating Line Graphs

① Hilda has collected several measurements and wants to record them in a double line graph.

If she will plot the masses along the vertical (↕) axis,
which of the following scales would be *most appropriate* for that axis?

(a)  between 10 and 35 grams

(b)  between 0 and 60 grams

(c)  between 0 and 120 grams

(d)  between 50 and 60 grams
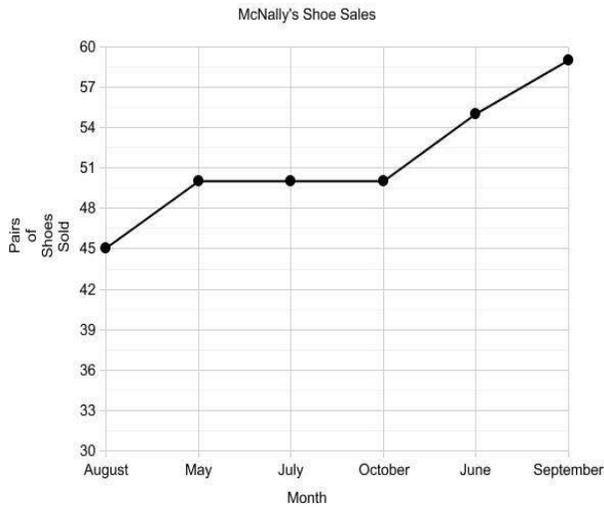
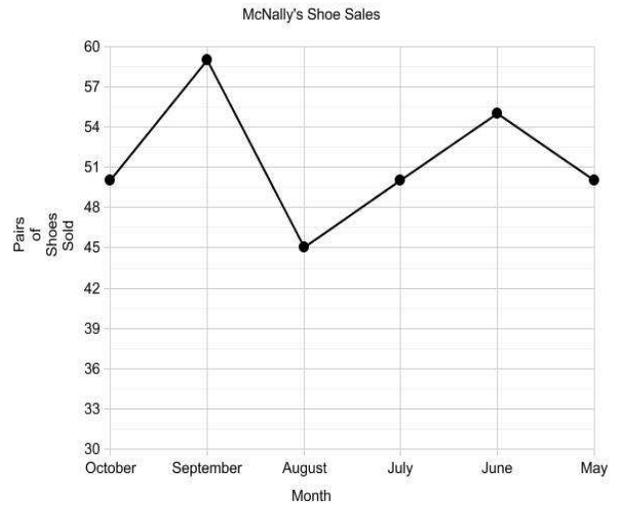| Mass (grams) | | |
|---|---|---|
| Trial | Specimen A | Specimen B |
| 1 | 49 g | 50 g |
| 2 | 42 g | 46 g |
| 3 | 52 g | 53 g |
| 4 | 48 g | 48 g |
| 5 | 56 g | 45 g |
| 6 | 55 g | 53 g |

*(Front and Back)*

② Which of the line graphs below **correctly** represents the data in the table for sales at McNally's Shoe Store?

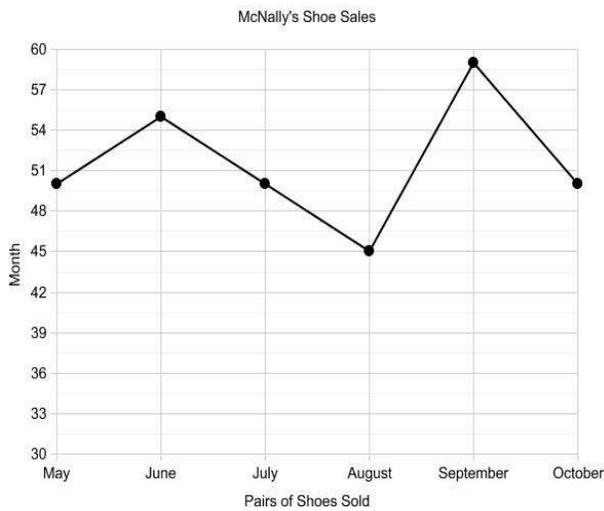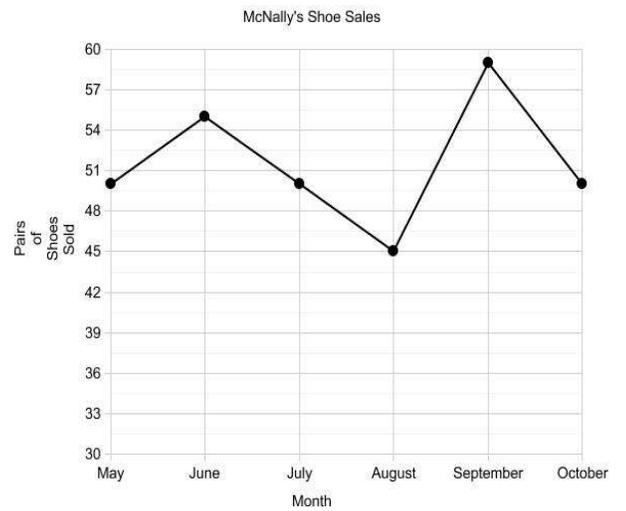| | McNally's Shoe Sales |
|---|---|
| May | 50 |
| June | 55 |
| July | 50 |
| August | 45 |
| September | 59 |
| October | 50 |

(A)



(B)



(C)
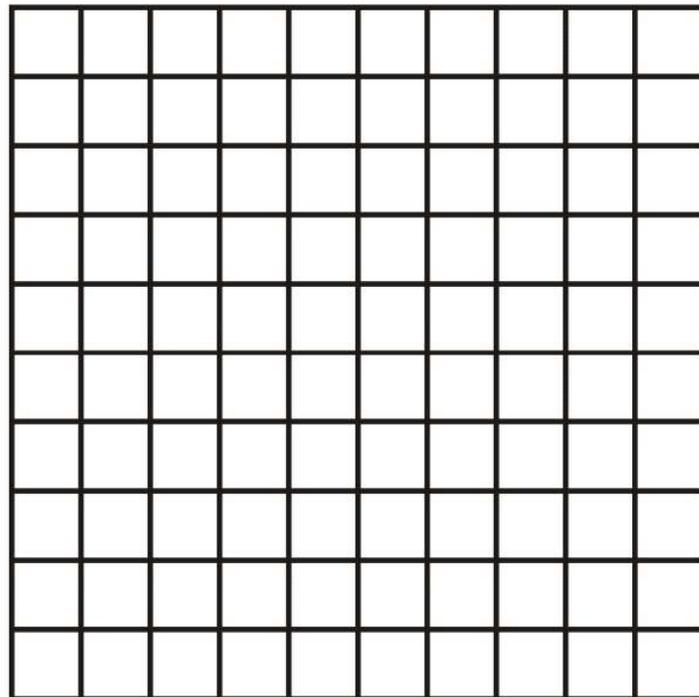


(D)

The table shows how the fifth grade class's field trip fund grew over five weeks. Make a line graph to represent the data.

| Week | Amount in Fund |
|---|---|
| 1 | $ 50.00 |
| 2 | $105.00 |
| 3 | $145.00 |
| 4 | $190.00 |
| 5 | $220.00 |

③ Your graph should include a title and axis labels.

④ You should show the scales on your graph.

⑤ Your data should be graphed accurately.
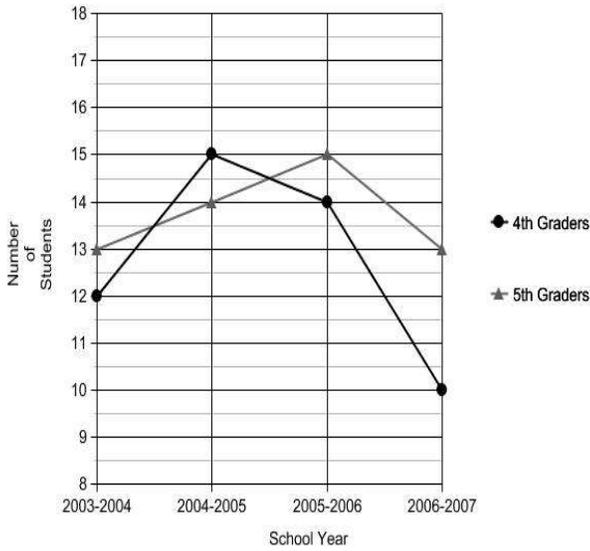
*(Front and Back)*

⑥ The table shows the number of fourth grade students and the number of fifth grade students who were part of the student council each year over a four year period.

| | 4th Grade | 5th Grade |
|---|---|---|
| 2003-2004 | 12 | 13 |
| 2004-2005 | 15 | 11 |
| 2005-2006 | 14 | 15 |
| 2006-2007 | 10 | 12 |

Which double-line graph **correctly** displays the data?

(A)

(B)

(C)
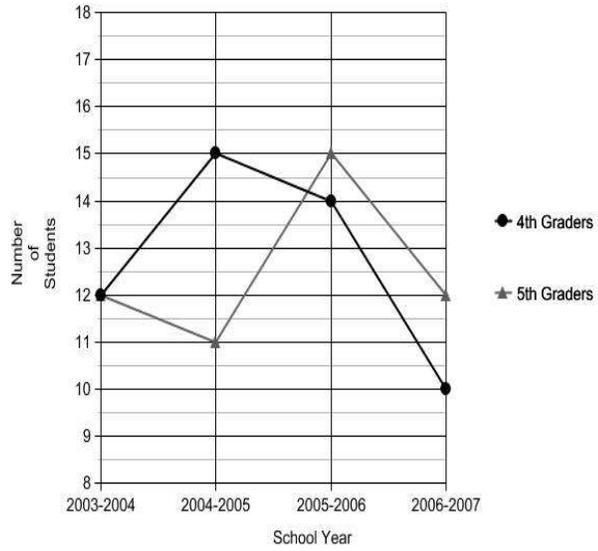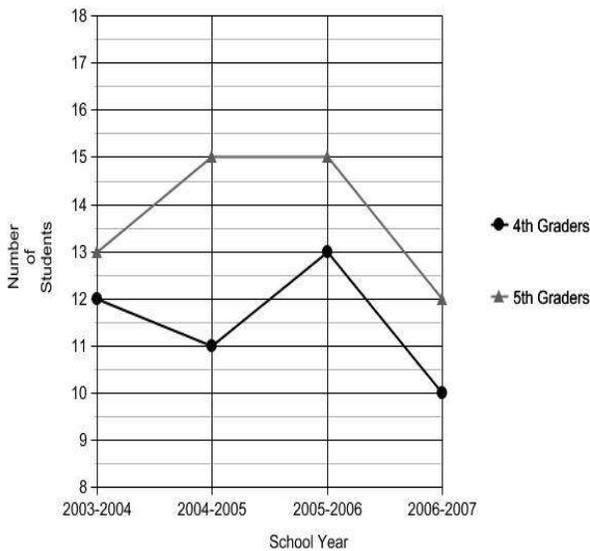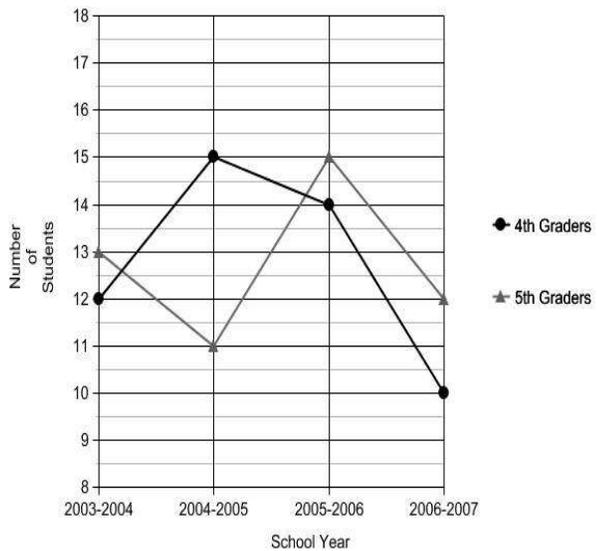
(D)

Paul and his brother Alex put part of their allowance in their savings account each month. The table shows how much money was in each boy's account for four months.

⑦    Your graph should include a title and axis labels.

⑧    You should show the scales on your graph.

⑨    Your data should be graphed accurately.

|           | Paul    | Alex    |
|-----------|---------|---------|
| January   | $10.00  | $ 8.00  |
| February  | $16.00  | $18.00  |
| March     | $22.00  | $24.00  |
| April     | $30.00  | $28.00  |

*(Front and Back)*
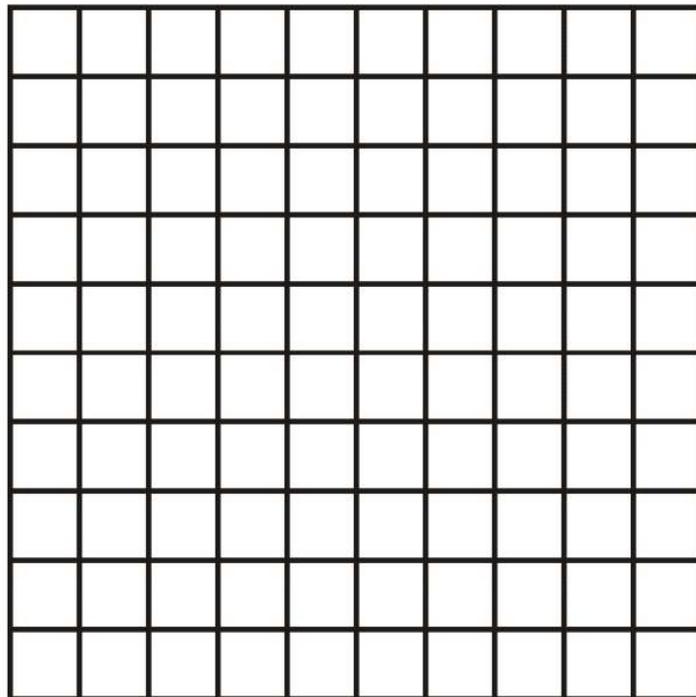
(10)(10) The table below shows the percent of households with television sets over a period of years. The line graph was created to represent the data in the table.

**Percent of Households with TV Sets**

| Year | 1940 | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 |
|---|---|---|---|---|---|---|---|
| Percent of Total Households | 0 | 12 | 88 | 96 | 98 | 98 | 98 |

What error was made in creating the line graph?

_____

**Percent of Households with TV Sets**



Year (vertical axis), Percent of Households (horizontal axis)

Name _____
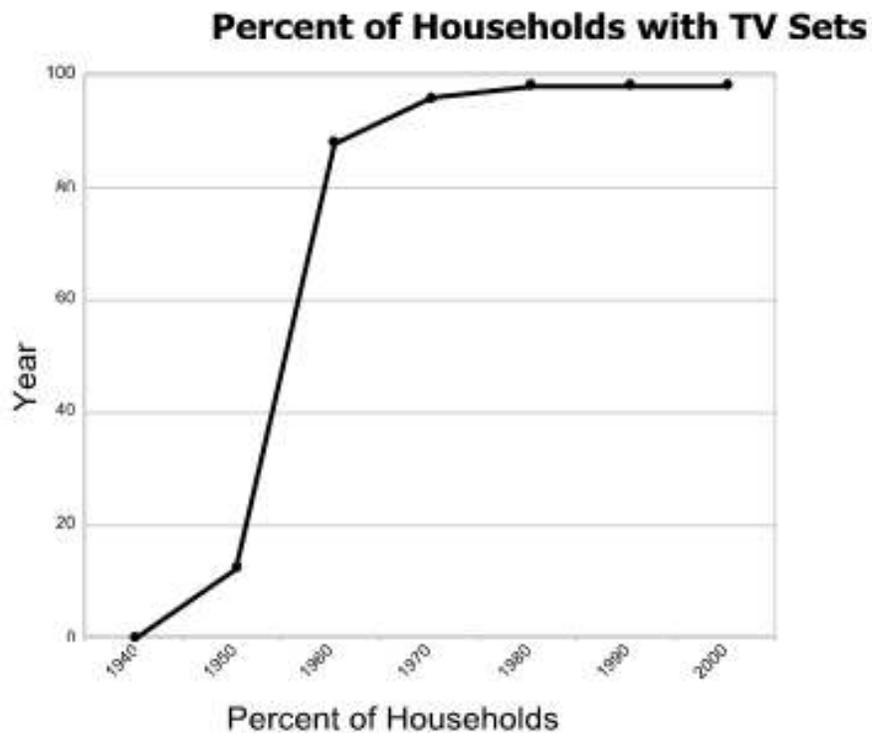
# Creating Line Graphs

① This table shows the number of bags of cat food and dog food sold each month at Pets-R-Us.

|  | Jan | Feb | March | April | May |
|---|---|---|---|---|---|
| Bags of Cat Food | 38 | 19 | 17 | 46 | 33 |
| Bags of Dog Food | 74 | 48 | 26 | 90 | 82 |

Which scale is the **most reasonable** to use on the vertical axis to make a double-line graph?

(a) 0-50          (b) 0-55          (c) 0-75          (d) 0-100

②

Roberta's class keeps a record of the number of compliments they receive from other teachers throughout the week. The chart below is the data that was collected.

| Number of Compliments Received This Week | | | | | |
|---|---|---|---|---|---|
| Day of The Week | Monday | Tuesday | Wednesday | Thursday | Friday |
| Number of Compliments | 10 | 5 | 4 | 8 | 12 |

Roberta used the chart to make the following line graph, but unfortunately she made an error in her line graph.

Number of Compliments Received This Week
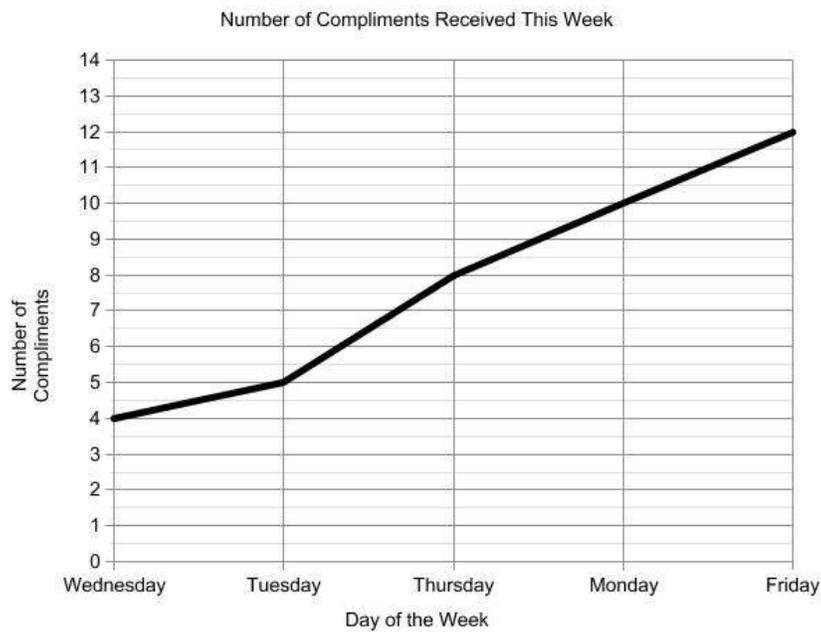


What error was made in creating the line graph?

_____

Paula participated in a walk-a-thon in her neighborhood. She started at 9:00 am. Every 30 minutes, she stopped to take a drink of water and record her total distance. The table shows the total number of blocks she had walked each time she stopped. Make a line graph using the data in the table.

| TIME | Total Blocks Walked |
|---|---|
| 9:00 am | 0 |
| 9:30 am | 25 |
| 10:00 am | 40 |
| 10:30 am | 55 |
| 11:00 am | 65 |

③ Your graph should include a title and axis labels.

④ You should show the scales on your graph.

⑤ Your data should be graphed accurately.
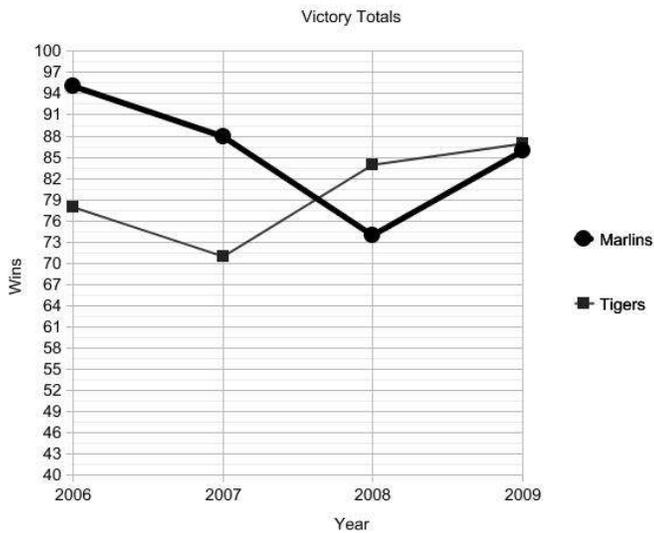
*(Front and Back)*
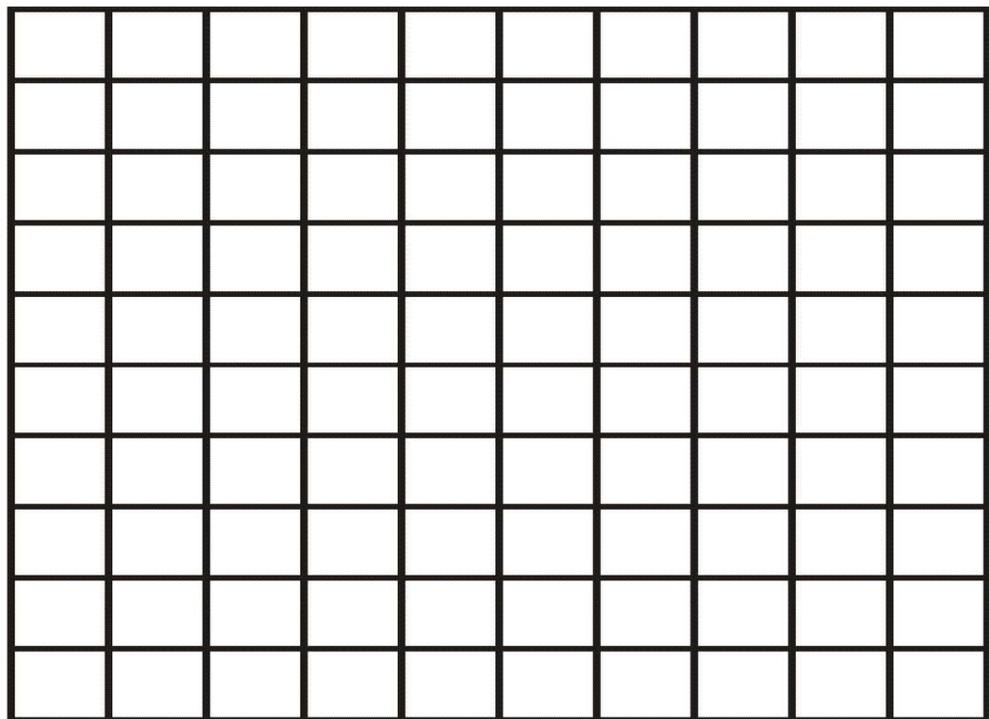
⑥ The table to the right shows the number of victories that two professional baseball teams had over the last four seasons.

**Victory Totals**

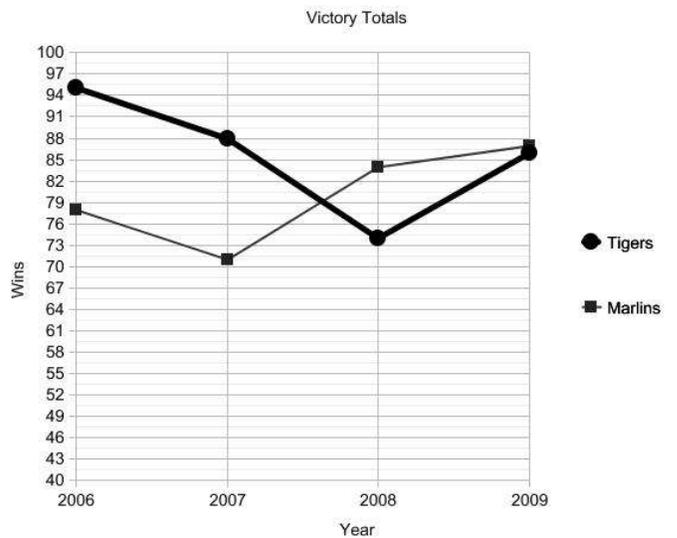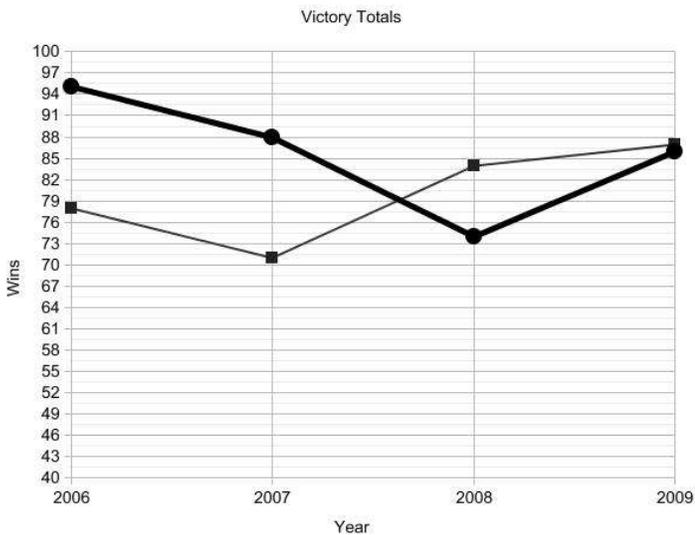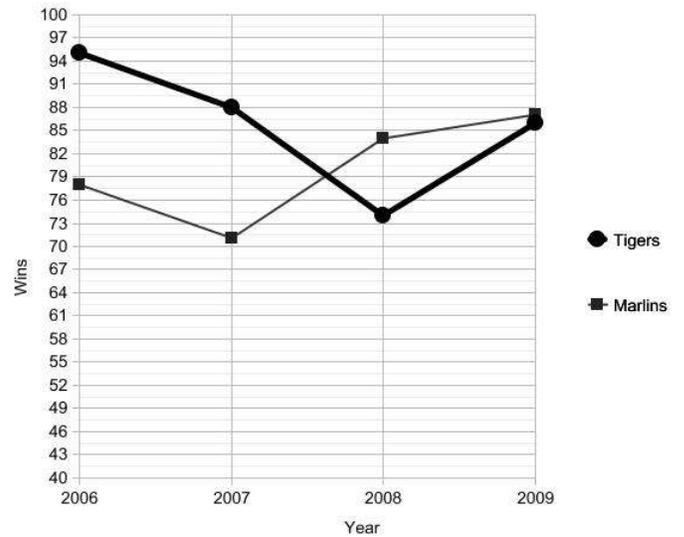|      | Tigers | Marlins |
|------|--------|---------|
| 2009 | 86     | 87      |
| 2008 | 74     | 84      |
| 2007 | 88     | 71      |
| 2006 | 95     | 78      |

Which double-line graph **best** displays the data?

(A)



(B)

(C)                                                                    (D)

Two Mackinac Island boat companies, Arnold and
Shepler, make 6 round trips to the island each day.

Make a double-line graph to show the data in the table.

⑦    Your graph should include a title and axis labels.

⑧    You should show the scales on your graph.

⑨    Your data should be graphed accurately.

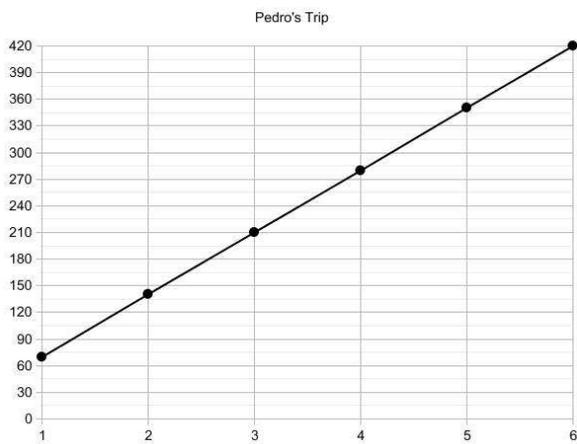| Trip Number | Passengers on Arnold | Passengers on Shepler |
|---|---|---|
| 1 | 240 | 200 |
| 2 | 235 | 180 |
| 3 | 210 | 195 |
| 4 | 190 | 185 |
| 5 | 200 | 220 |
| 6 | 260 | 240 |

*(Front and Back)*
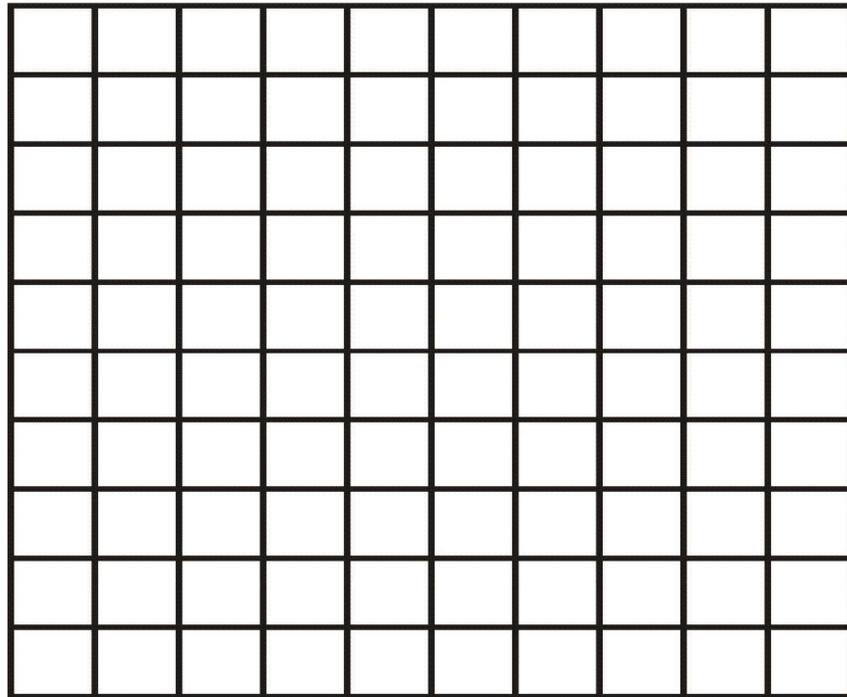
⑩ Pedro drives his car 70 miles per hour on the highway. The table below shows his data for a 6 hour ride at that speed.

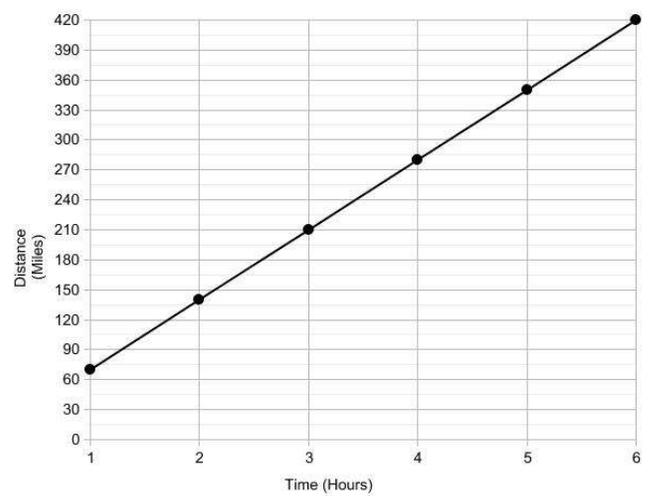Which of the following graphs **best** represents Pedro's data?

| Hours | Miles |
|-------|-------|
| 1 | 70 |
| 2 | 140 |
| 3 | 210 |
| 4 | 280 |
| 5 | 350 |
| 6 | 420 |

(A)



Pedro's Trip

(B)



(C)



Pedro's Trip

(D)
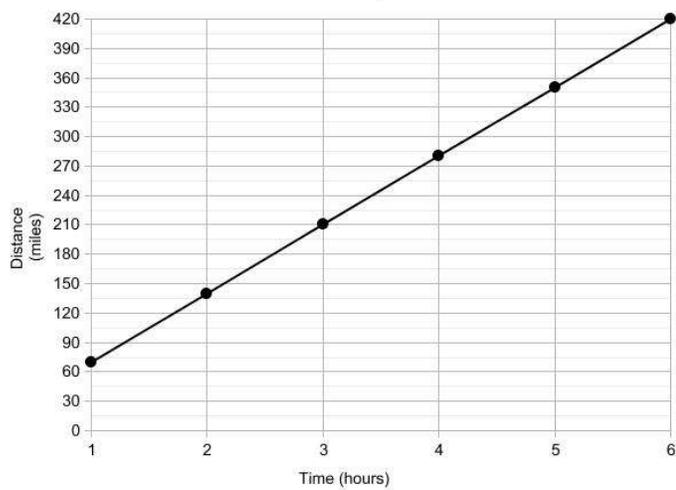


Pedro's Trip
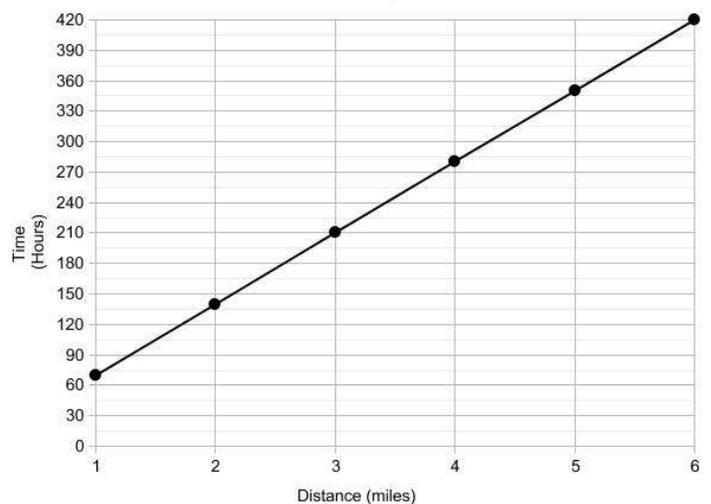
# Creating Line Graphs

① Look at the table below.

**Student Enrollment at Rogers School**

|  | Kindergarten | 1$^{st}$ Grade |
|---|---|---|
| 2009-2010 | 185 | 192 |
| 2008-2009 | 193 | 180 |
| 2007-2008 | 191 | 187 |

Which of these would be the **best** scale choice for making the vertical axis of a line graph?

(a)   0 – 100

(b)   0 – 200

(c)   200 – 300

(d)   200 - 400

*(Front and Back)*

The table shows the temperature at noon in Melvindale over a seven day period.

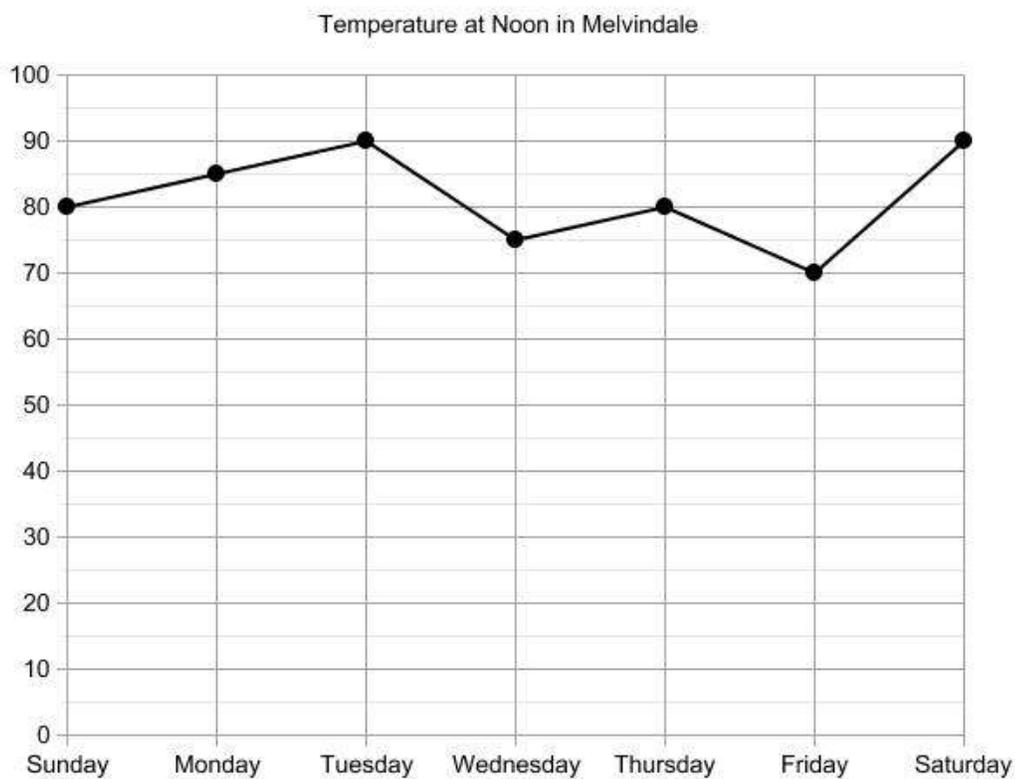**Temperature at Noon in Melvindale**

| Day | Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|---|
| Temperature (°F) | 80 | 85 | 90 | 75 | 80 | 70 | 90 |

The graph below was made by a student to represent the data.



Temperature at Noon in Melvindale

The student, unfortunately, made a mistake when creating the line graph.
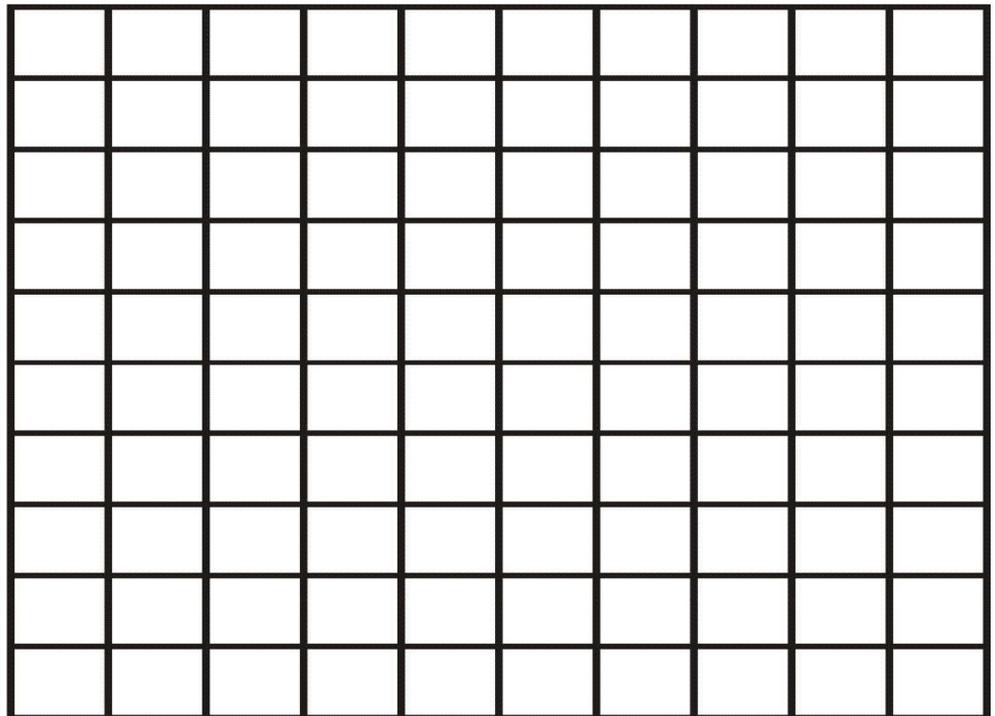
② What's wrong with this graph?

_____

A scientist spent many years studying the height of a tree. The table at the right shows the height of the tree at different ages.

Make a line graph to represent the data in the table.

③ Your graph should include a title and axis labels.

④ You should show the scales on your graph.

⑤ Your data should be graphed accurately.

| Tree's Age (in years) | Tree's Height (in feet) |
|---|---|
| 2 | 10 |
| 4 | 50 |
| 6 | 80 |
| 8 | 95 |

*(Front and Back)*

**Number of Tickets Sold**

|  | Comedy | Action Movie |
|---|---|---|
| Week 1 | 400 | 375 |
| Week 2 | 338 | 311 |
| Week 3 | 302 | 380 |
| Week 4 | 298 | 301 |

⑥ The table at the right shows ticket sales for two different movies at the Allen Park Cinema.

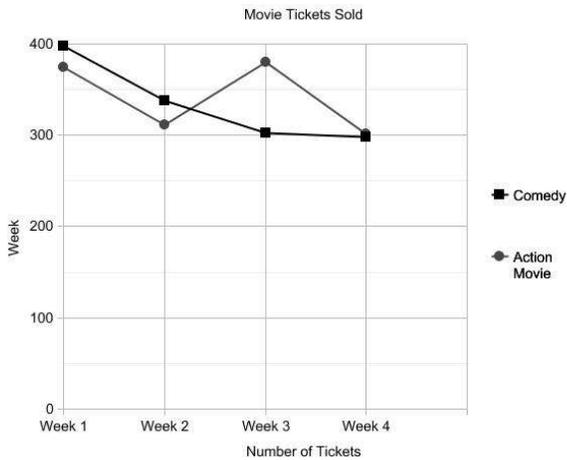Which double-line graph **best** displays the data?

(A)
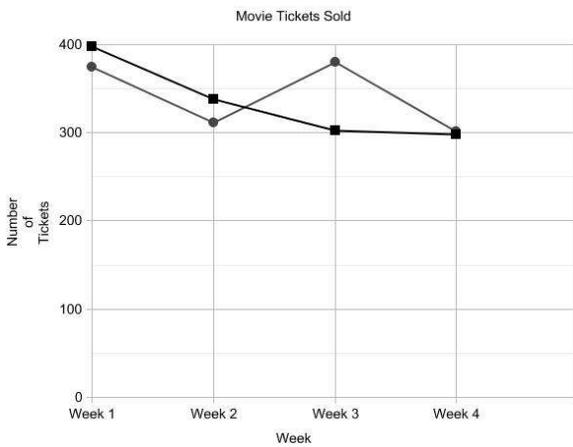


(B)
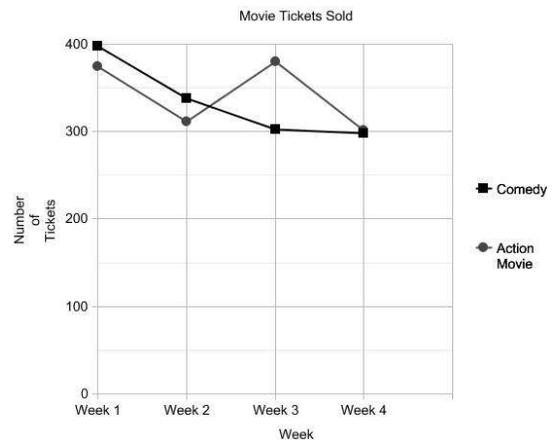


(C)



(D)
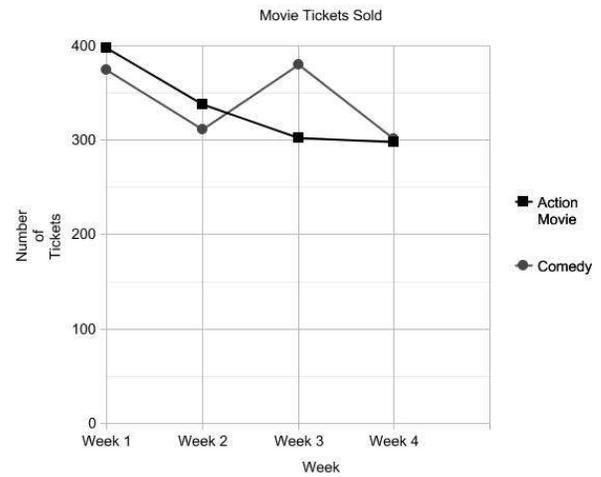
Andre and Jamal are cousins who both mow lawns. For five months they kept track of the number of lawns they mowed. The data is shown in the table to the right.

**Make a double-line graph to show the data in the table.**

⑦ Your graph should include a title and axis labels.

⑧ You should show the scales on your graph.

⑨ Your data should be graphed accurately *with a key*.

| Lawn Mowing Results | | |
|---|---|---|
| Month | Andre | Jamal |
| May | 15 | 20 |
| June | 18 | 16 |
| July | 20 | 16 |
| August | 18 | 16 |
| September | 15 | 20 |

*(Front and Back)*
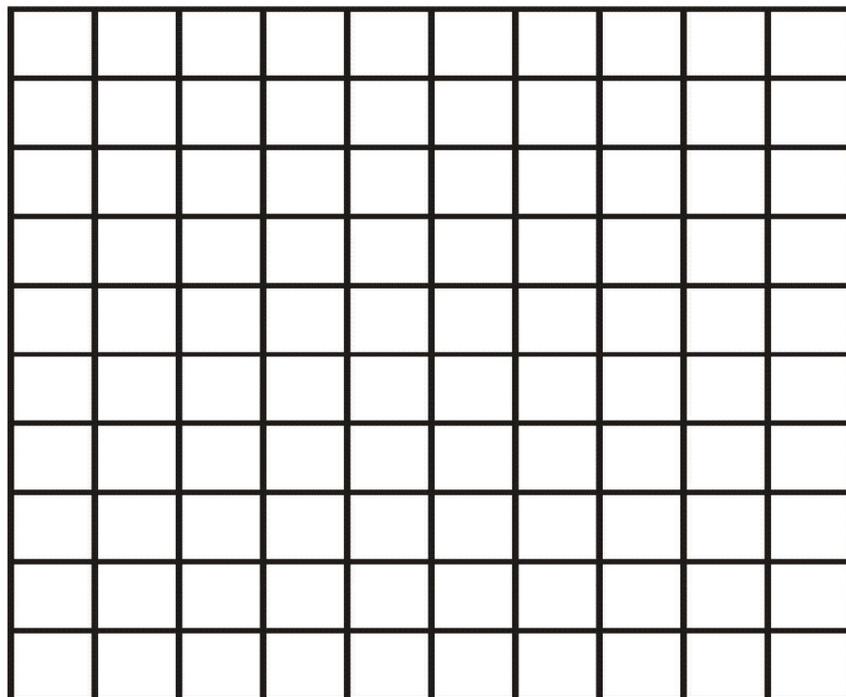
⑩ A portion of Jason's report card is shown in the chart at the right.  He wants to turn this chart into a line graph.

Which of the following graphs **best** represents Jason's data?

| Card Marking | Math Grade (%) |
|---|---|
| 1st | 76 |
| 2nd | 83 |
| 3rd | 87 |
| 4th | 91 |

(A)

Jason's Math Grades

Grade (%)

Card Marking

(B)

Jason's Math Grades

Grade (%)

Card Marking

(C)

Jason's Math Grades

Grade (%)

Card Marking

(D)

Jason's Math Grades

Grade (%)

Card Marking
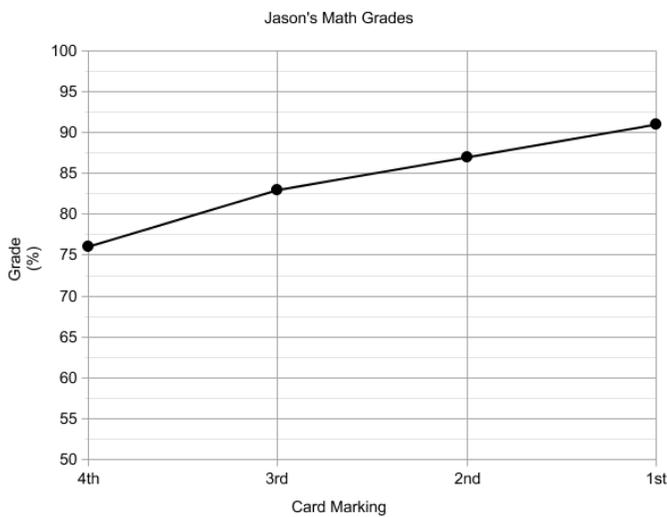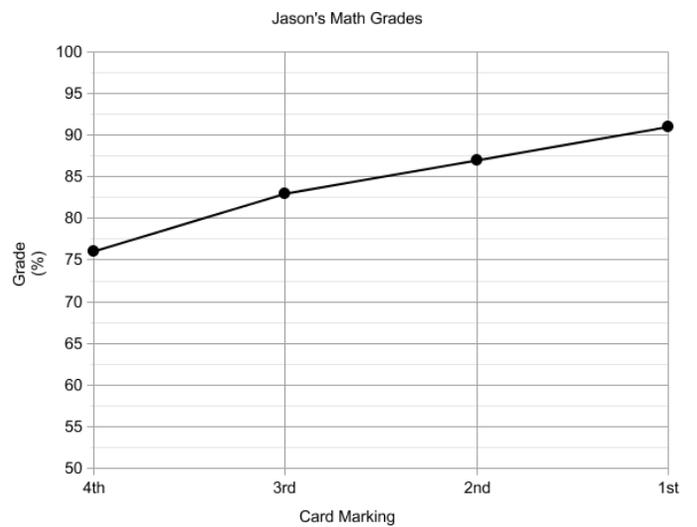
# Creating Line Graphs
*Use the data in each table to complete the line graphs.*

**#1**  A vendor at the farmers' market counted the number of bread loaves sold each day.

Use the data in the table to complete the line graph.

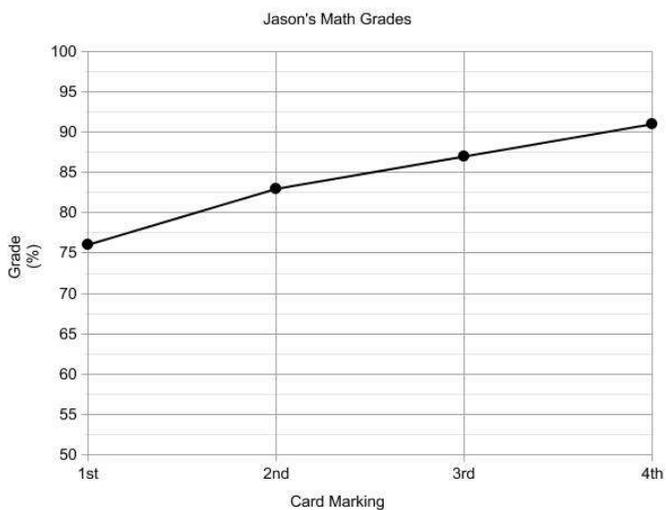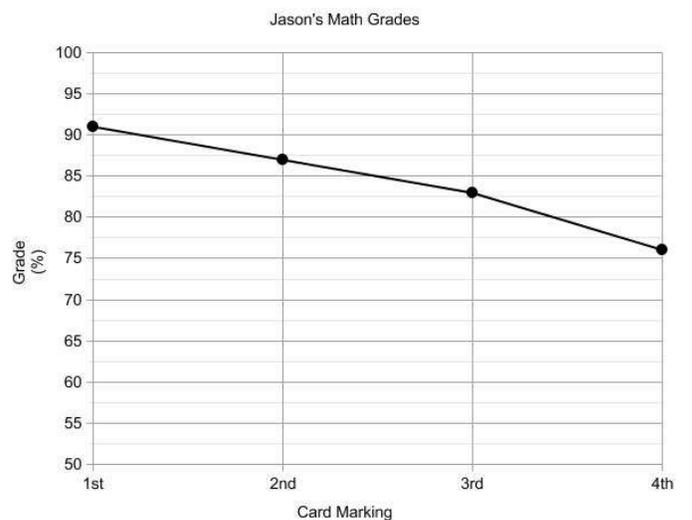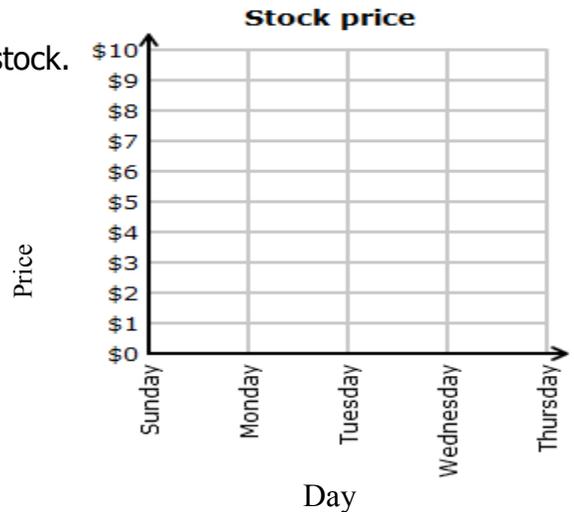| Bread sales | |
|---|---|
| Day | Loaves of bread sold |
| Tuesday | 6 |
| Wednesday | 5 |
| Thursday | 9 |
| Friday | 4 |

**Bread sales**

Loaves Sold: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

Day: Tuesday, Wednesday, Thursday, Friday

**#2**  An investor tracked the daily price of his favorite stock.

| Stock price | |
|---|---|
| Day | Price |
| Sunday | $7 |
| Monday | $7 |
| Tuesday | $8 |
| Wednesday | $10 |
| Thursday | $9 |

**Stock price**

Price: $10, $9, $8, $7, $6, $5, $4, $3, $2, $1, $0

Day: Sunday, Monday, Tuesday, Wednesday, Thursday

**#3**  In trying to calculate how much money could be saved by packing lunch Enrique recorded the amount he spent on lunch each day.

| Amount Enrique spent on lunch | |
|---|---|
| Day | Amount spent |
| Sunday | $5 |
| Monday | $1 |
| Tuesday | $7 |
| Wednesday | $3 |

**Amount Enrique spent on lunch**

Amount Spent: $10, $9, $8, $7, $6, $5, $4, $3, $2, $1, $0

Day: Sunday, Monday, Tuesday, Wednesday

*(Front and Back)*
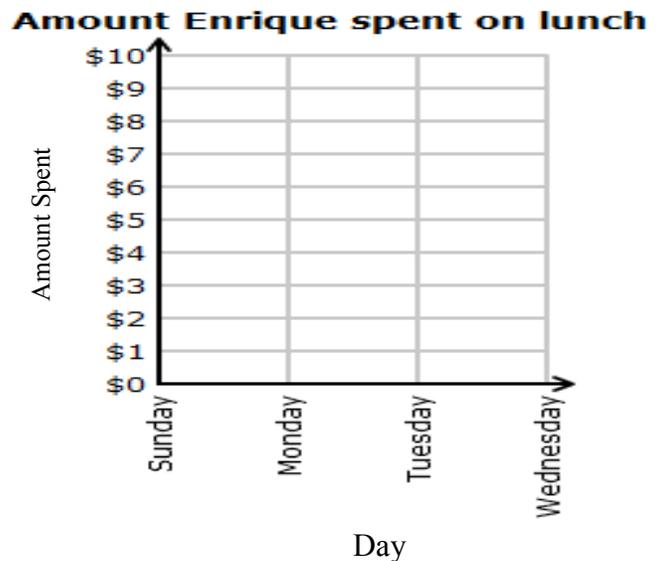
**#4** As part of an English assignment, Mateo counted the number of spelling errors made in The Bloomington Chronicle.

### Spelling errors made in The Bloomington Chronicle

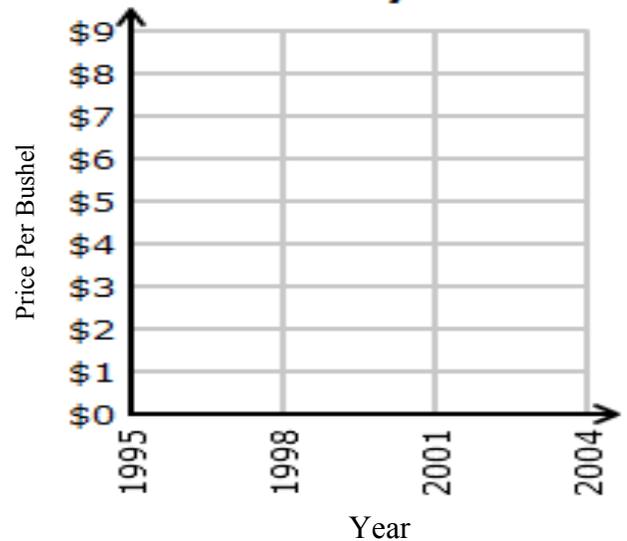| Month | Number of errors |
| --- | --- |
| July | 3 |
| August | 9 |
| September | 10 |
| October | 4 |

**Spelling errors made in The Bloomington Chronicle**
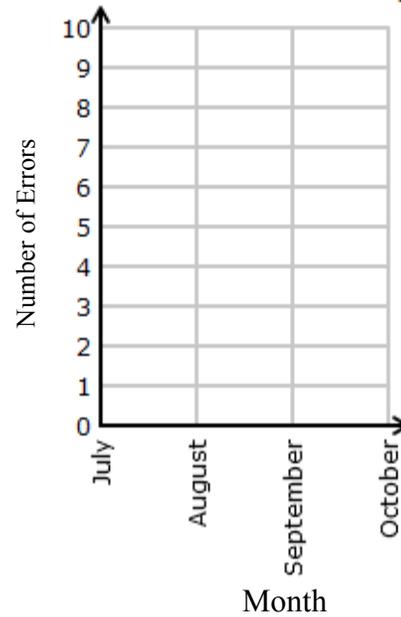
**#5** An agricultural research group tracked soybean prices over the years.

### Price of soybeans

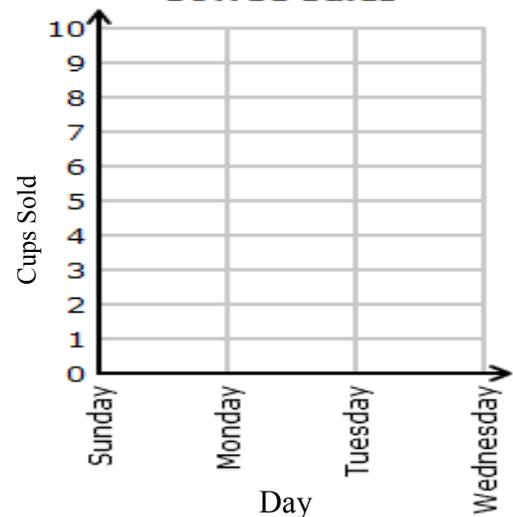| Year | Price per bushel |
| --- | --- |
| 1995 | $6 |
| 1998 | $6 |
| 2001 | $4 |
| 2004 | $8 |

**Price of soybeans**

**#6** The manager of Tim Horton's counted the number of cups of coffee sold each day to determine the right amount of coffee beans to roast.

### Coffee sales

| Day | Cups sold |
| --- | --- |
| Sunday | 4 |
| Monday | 8 |
| Tuesday | 3 |
| Wednesday | 10 |

**Coffee sales**

Name _____    Homework #2

# Creating Line Graphs

*Use the data in each table to complete the line graphs.*

**#1**  A veterinarian kept track of the weight of a puppy named Bailey from April through August.  The results are shown below.

| Bailey the puppy's weight | |
|---|---|
| Month | Weight (pounds) |
| April | 1 |
| May | 1 |
| June | 2 |
| July | 5 |
| August | 8 |

**Bailey the puppy's weight**

(graph: Weight (pounds) vs Month — April, May, June, July, August)
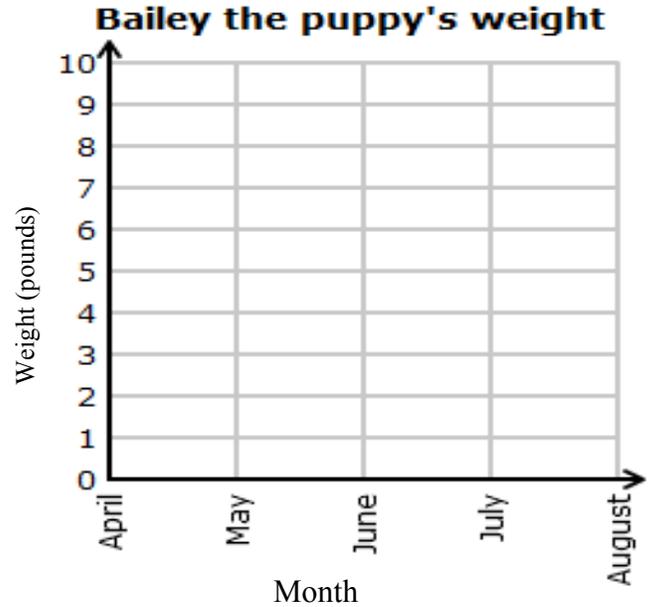
**#2**  A farmer is considering the possibility of growing broccoli.  He investigated the price per carton and put his findings in the table below.
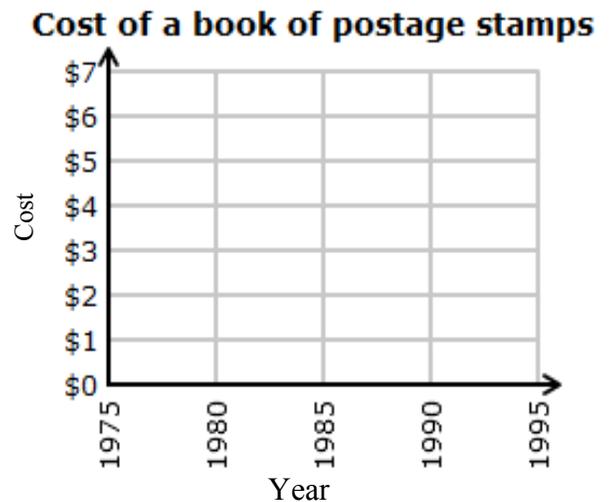
| Price per carton for broccoli | |
|---|---|
| Year | Price (dollars per carton) |
| 1993 | $7 |
| 1994 | $5 |
| 1995 | $8 |
| 1996 | $6 |
| 1997 | $8 |

**Price per carton for broccoli**

(graph: Price (Dollars) vs Year — 1993, 1994, 1995, 1996, 1997)
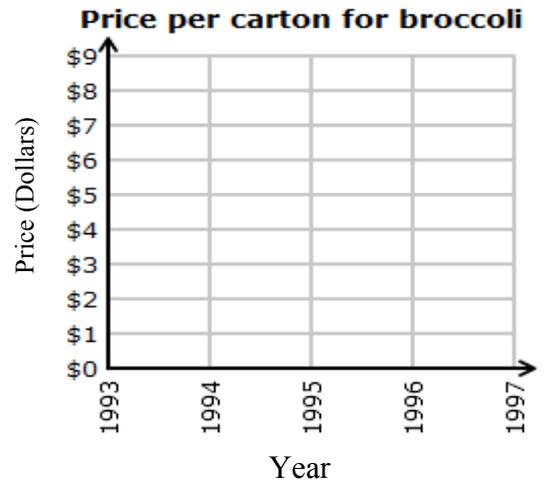
**#3**  An e-cards website showed the growing cost of a book of stamps to point out the cost savings from switching to e-cards.  The data is shown below.

| Cost of a book of postage stamps | |
|---|---|
| Year | Cost |
| 1975 | $2 |
| 1980 | $3 |
| 1985 | $4 |
| 1990 | $5 |
| 1995 | $6 |

**Cost of a book of postage stamps**

(graph: Cost vs Year — 1975, 1980, 1985, 1990, 1995)

*(Front and Back)*

**#4**  Before scheduling a family vacation, the Moran family looked at the rainfall in Seattle each month.  Their findings are shown below.

| Average monthly rainfall in Seattle | |
|---|---|
| Month | Rainfall (inches) |
| July | 1 |
| August | 1 |
| September | 2 |
| October | 3 |
| November | 6 |

**Average monthly rainfall in Seattle**
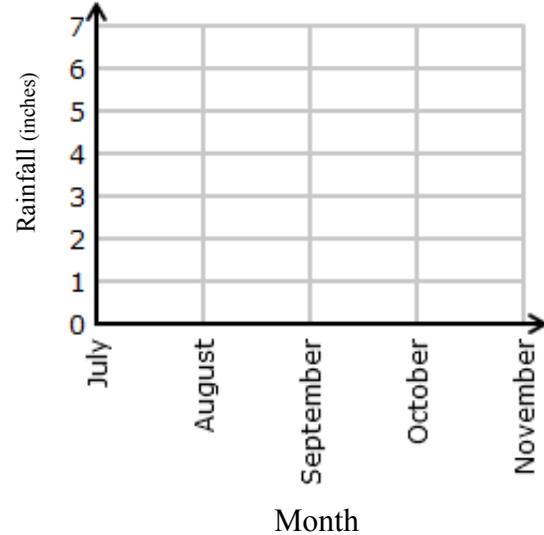


**#5**  Jackie, a doctor's office receptionist, tracked the average wait time at the office each month.  The minutes are shown in the table.

| Average waiting time at a doctor's office | |
|---|---|
| Month | Waiting time (minutes) |
| March | 6 |
| April | 3 |
| May | 9 |
| June | 5 |

**Average waiting time at a doctor's office**
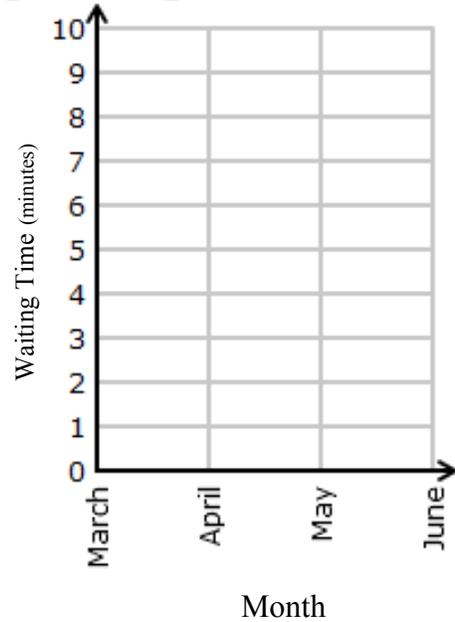


**#6**  A baseball fan monitored how many games were in the World Series each year from 2001 to 2005.  The results are shown below.

| Games played in the World Series | |
|---|---|
| Year | Number of games |
| 2001 | 7 |
| 2002 | 7 |
| 2003 | 6 |
| 2004 | 4 |
| 2005 | 4 |

**Games played in the World Series**
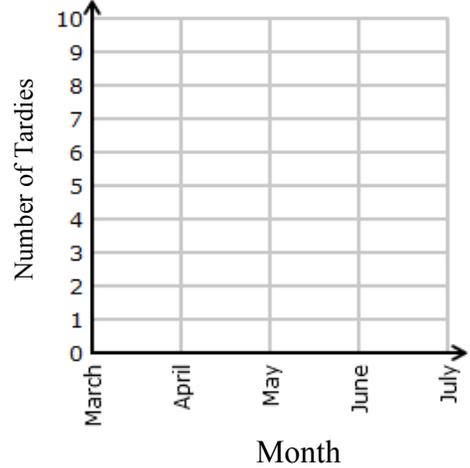
Name _____
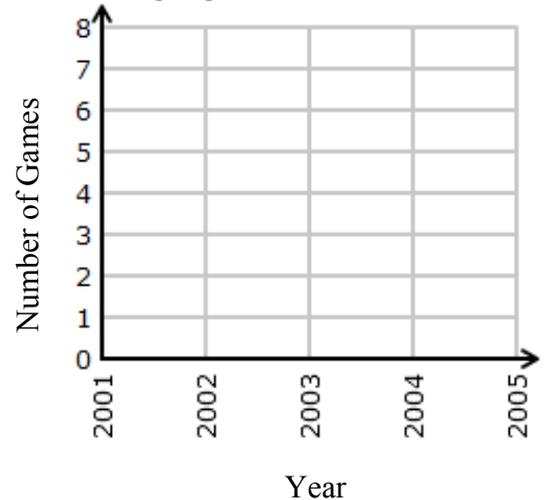
# Creating Line Graphs

*Use the data in each table to complete the line graphs.*

**#1** Stanley's parents kept track of the number of times the attendance office called to report that he had been late for school.

| Times Stanley was late to school | |
|---|---|
| Month | Number of times |
| March | 3 |
| April | 8 |
| May | 2 |
| June | 5 |
| July | 3 |

**Times Stanley was late to school**



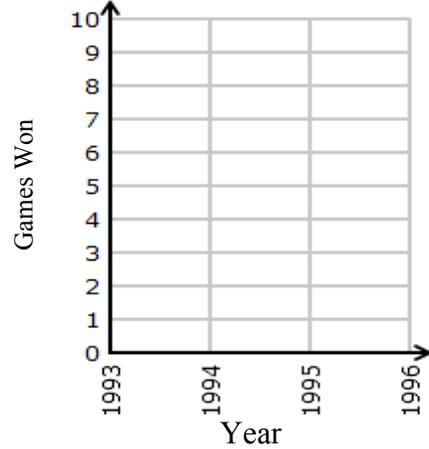**#2** Fans of the Hamilton baseball team compared the number of games won by the team each year.

| Games won by Hamilton baseball team | |
|---|---|
| Year | Games won |
| 1993 | 5 |
| 1994 | 7 |
| 1995 | 8 |
| 1996 | 9 |

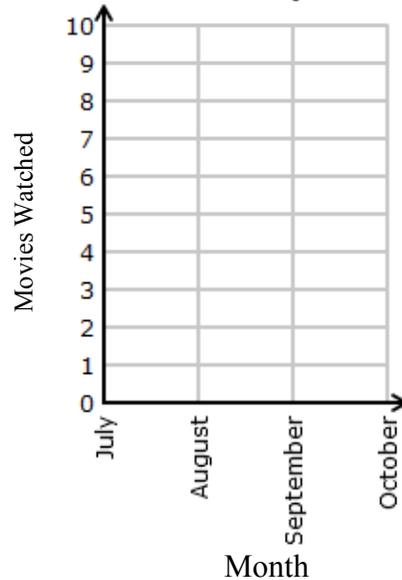**Games won by Hamilton baseball team**



**#3** Terrence, a film student, kept track of the number of movies he watched each month.

| Movies watched by Terrence | |
|---|---|
| Month | Number of movies |
| July | 9 |
| August | 7 |
| September | 3 |
| October | 8 |

**Movies watched by Terrence**



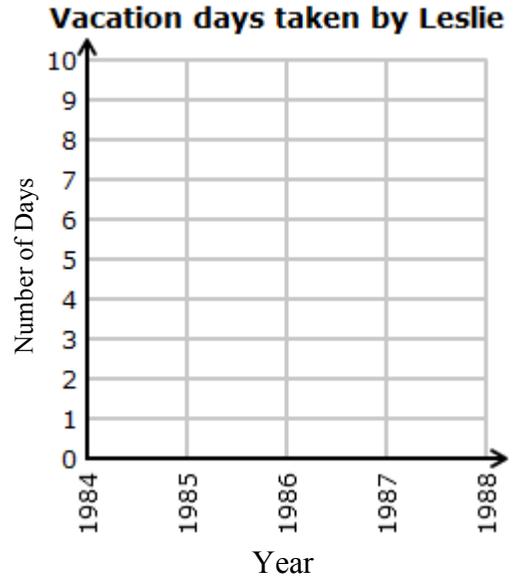*(Front and Back)*

**#4** Leslie looked over her old calendars to figure out how many days of vacation she had taken each year.

| Vacation days taken by Leslie | |
|---|---|
| Year | Number of vacation days |
| 1984 | 7 |
| 1985 | 10 |
| 1986 | 7 |
| 1987 | 2 |
| 1988 | 6 |

**Vacation days taken by Leslie**



**#5** In a report about the history of the Olympics, Jacqueline reported the number of Olympic medals won by several countries, including Finland.

| Olympic medals won by Finland | |
|---|---|
| Year | Number of medals |
| 1968 | 4 |
| 1972 | 8 |
| 1976 | 6 |
| 1980 | 8 |

**Olympic medals won by Finland**



**#6** Before deciding which variety of lettuce to grow, a farmer considered the price per carton for Western head lettuce.

| Price per carton for Western head lettuce | |
|---|---|
| Year | Price (dollars per carton) |
| 1993 | $7 |
| 1994 | $4 |
| 1995 | $10 |
| 1996 | $6 |
| 1997 | $5 |

**Price per carton for Western head lettuce**