

# Level M - Form 1 - Applied Mathematics: Data Analysis

## Sample Question

Popcorn Prices	
Small.....	\$1.50
Medium.....	\$2.25
Large.....	\$3.50
Jumbo.....	\$4.25 

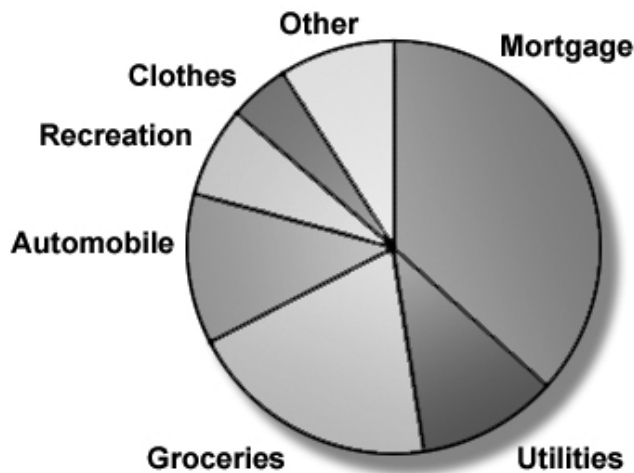
What is the cost of one large popcorn?

- A \$1.50
- B \$2.25
- C \$3.50
- D \$4.25

# Level M - Form 1 - Applied Mathematics: Data Analysis

This graph shows how the McGregor family spends money. Study the graph. Then do Numbers 1 through 4.

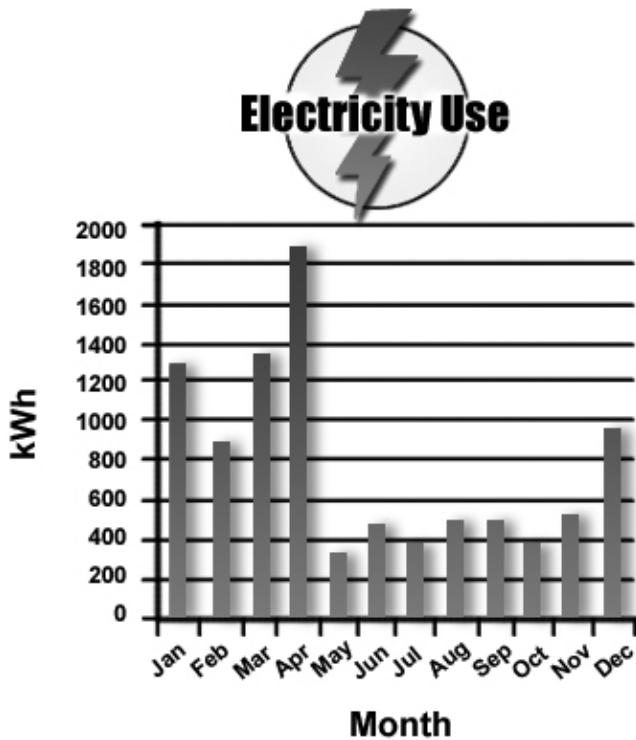
## Family Spending



1. Which of these is the greatest expense for the McGregor family?  
A automobile  
B mortgage  
C groceries  
D utilities

2. More than half of the family's spending is on  
F mortgage and other  
G mortgage and utilities  
H mortgage and groceries  
J mortgage and clothes
3. Which of these make up about one-fourth of the family's expenses?  
A mortgage  
B utilities  
C automobile, recreation, and clothes  
D groceries and automobile
4. What can this graph be used to show?  
F how the family can spend less money  
G the family's lowest expense each month  
H how many groceries go to waste  
J the number of activities the children participate in

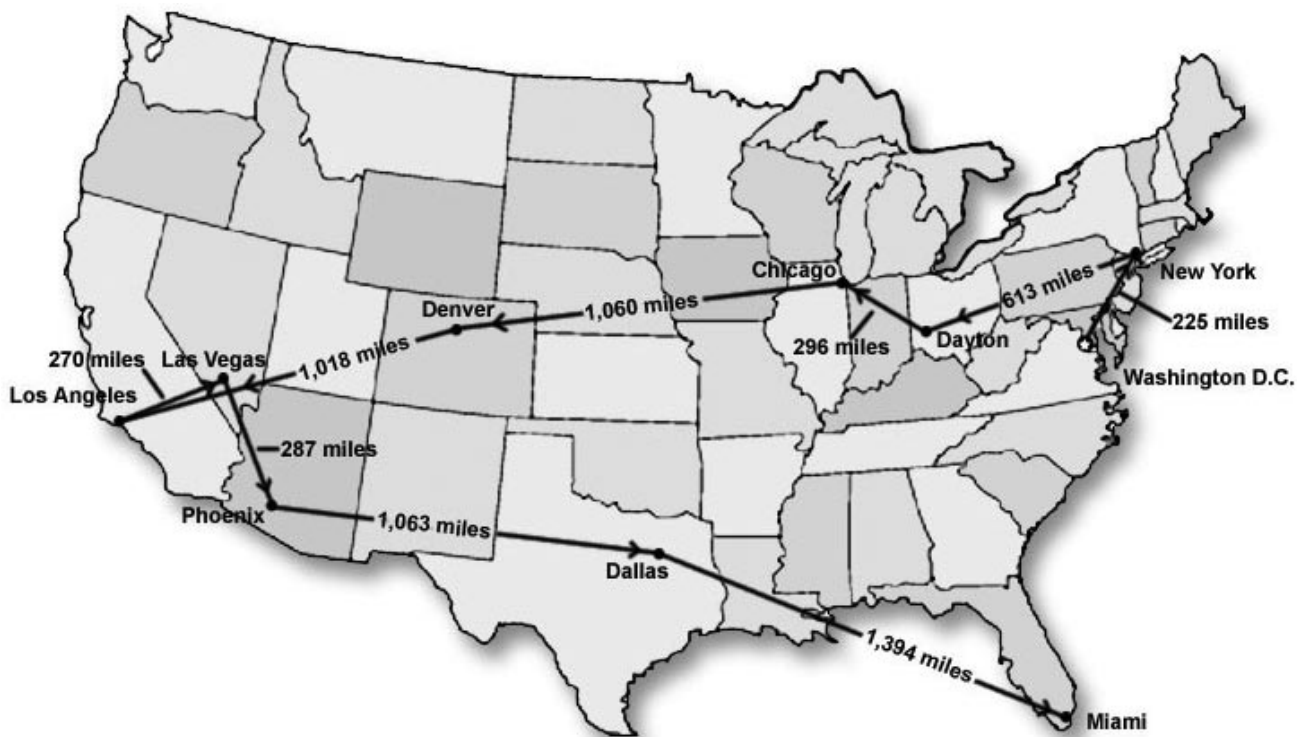
This bar graph shows a family's electricity usage for the past year. Study the graph. Then do Numbers 5 through 7.



5. How much electricity was used in August?
- A 300 kWh
  - B 450 kWh
  - C 500 kWh
  - D 250 kWh

6. Which month had the greatest use of electricity?
- F March
  - G April
  - H May
  - J December
7. According to the data in the graph, which of these statements about this family's electricity use is true?
- A The family used more electricity in February than in December.
  - B Electric use decreased steadily from April to October.
  - C Electric use increased steadily from May to December.
  - D The two months with the greatest difference in electricity use are April and May.

Clay is planning a cross-country trip. This map shows the routes he will follow and the distances between each city he will visit. Study the map. Then do Numbers 8 through 11.



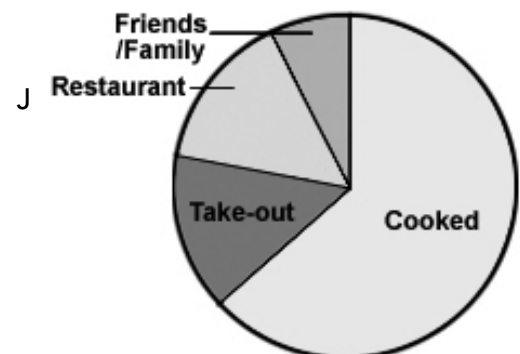
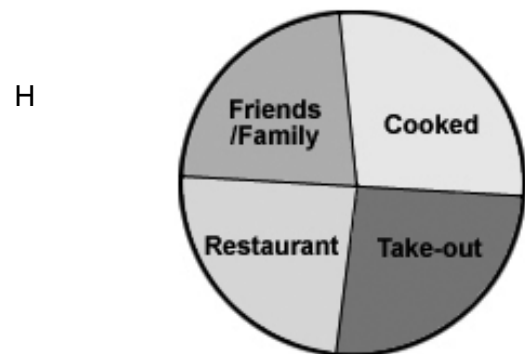
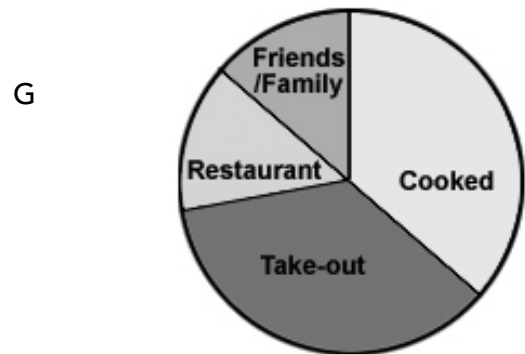
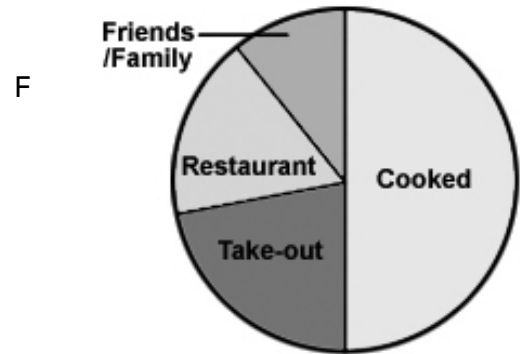
- |  |   |
|--|---|
| <p>8. Where does Clay plan to start his trip?</p> <ul style="list-style-type: none"> <li>F New York, NY</li> <li>G Washington, D.C.</li> <li>H Los Angeles, CA</li> <li>J Miami, FL</li> </ul> <p>9. What is the distance between Los Angeles, CA, and Las Vegas, NV?</p> <ul style="list-style-type: none"> <li>A 287 miles</li> <li>B 270 miles</li> <li>C 296 miles</li> <li>D 1,018 miles</li> </ul> | <p>10. What will be the longest part of the trip?</p> <ul style="list-style-type: none"> <li>F Dallas, TX, to Miami, FL</li> <li>G Phoenix, AZ, to Dallas, TX</li> <li>H Chicago, IL, to Denver, CO</li> <li>J Denver, CO, to Los Angeles, CA</li> </ul> <p>11. Clay wants to organize the distances and the time it will take to get from one city to another. Which data display is the most appropriate for him to use?</p> <ul style="list-style-type: none"> <li>A a bar graph</li> <li>B a line graph</li> <li>C a table</li> <li>D a circle graph</li> </ul> |
|--|---|

As part of Nadia's nutrition class, she filled out this chart for the month of March. Study the chart. Then do Numbers 12 through 14.

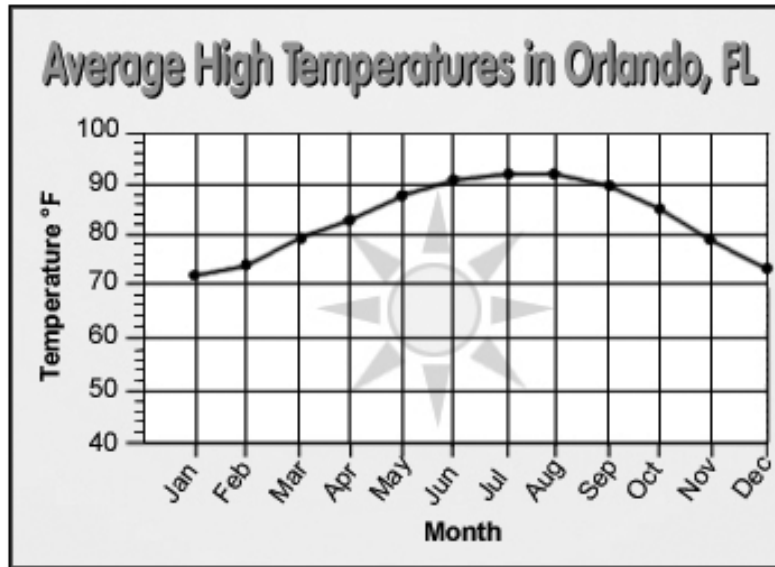
DINING HABITS			
Cooked	Ordered Take-out	Went to Restaurant	Visited Family/Friends

12. How many times did Nadia order take-out?  
 F 3  
 G 7  
 H 6  
 J 5
13. How many times did Nadia cook or visit family and friends for dinner?  
 A 12  
 B 15  
 C 18  
 D 20

14. Which of these graphs most accurately displays Nadia's eating habits for dinner?





This graph shows the average high temperatures for Orlando, Florida. Study the line graph. Then do Numbers 15 through 17.



15. Georgina is planning her Florida vacation for September. What is the average high temperature in September in Orlando?
- A 85°F
  - B 88°F
  - C 90°F
  - D 92°F
16. According to the line graph, which month in Orlando is the coolest?
- F December
  - G January
  - H February
  - J March
17. According to the information in the line graph, which of these statements about the temperature in Orlando is true?
- A The temperature in Orlando never goes below 72°F.
  - B The temperature tends to increase from August through December.
  - C On average, July and August are the hottest months.
  - D The temperature range of Orlando is about 60°F.

Marta and her husband are planning to attend their niece's wedding. This brochure shows the rates to stay overnight at a hotel near the reception hall. Study the brochure. Then do Numbers 18 through 20.

	
<p><b>Room Rates*</b></p> <p>Studio \$69 + tax</p> <p>1 Bedroom \$79 + tax</p> <p>2 Bedroom \$119 + tax</p>	<p><b>Breakfast Buffet</b></p> <p>Adults.....\$6.95</p> <p>Senior citizens..\$5.95 (ages 62+)</p> <p>Children.....\$4.95 (ages 4 - 12)</p> <p>(under 4).....Free</p> <p>*Free coffee and tea</p>
<p></p> <p><b>Check-in time:</b> 2:00 P.M.</p> <p><b>Check-out time:</b> 11:00 A.M.</p>	

18. How much will it cost for Marta and her husband to stay in a 1 bedroom suite and have coffee in the morning?
- F \$69 + tax + the cost of the buffet
- G \$79 + tax + the cost of the buffet
- H \$79 + tax
- J \$119
19. For business purposes, the Suite Hotel keeps data on various aspects of the hotel. Which of these would best display the percentage of guests who are senior citizens and eat at the hotel buffet?
- A line graph
- B tally table
- C bar graph
- D circle graph

20. Which bar graph correctly displays the prices for the Suite Hotel?

