Contents

TEACHER GUIDE

STUDENT HANDOUTS

Data Analysis & Probability – Task Sheets

Contents

1+2 Task Sheet

NAME: _____

Task Sheet 6

6) Create four sets of numbers.

The first set of numbers will have a mode of 12.

The second set of numbers will have a median of 36.

The third set of numbers will have a mean of 17.

The fourth set of numbers will have a range of 24.

a)

b)

c)

d)

Reflection

Explain the strategies you used to determine each set of numbers.

NAME: _____

1+2 Task Sheet

Task Sheet 11

11) The following are the Top Ten most visited Internet sites.

1) Yahoo Sites
2) Time Warner Network
3) Microsoft Sites
4) Google Sites
5) eBay
6) Fox Interactive Media
7) Amazon Sites
8) Ask Network
9) Wikipedia Sites
10) New York Times Digital

a) Represent this information in the circle graph provided below.

Explore With Technology

Visit http://searchengineland.com/wikipedia-enters-top-ten-most-visited-sites-10536 to see how many millions of visitors each site had and input this information in a graph other than a circle graph.

Timed Drill Sheet # 1

NAME: _____

Minutes

2a) The following table shows the results of the Carroll Middle School 5 mile (8 km) Road Race.

Ex: What is the mode of Jessica, Miguel, Carla and Leigh's race times? 28.15 min

Road Race results (in minutes and hundredths of a minute)

Jessica's time = 28.15 min	Arthur's time = 27.40 min	Dominic's time = 27.50 min
Miguel's time = 27.45 min	Chelsea's time = 29.01 min	Ariel's time = 27.55 min
Carla's time = 29.23 min	Leigh's time = 28.15 min	Ella's time = 29.03 min
Won's time = 28.67 min	Tim's time = 27.63 min	Tia's time = 27.83 min

i) Who had the fastest time in this group? _____

ii) Who had the slowest time in this group? _____

iii) What is the range of times in this group? _____

iv) What was Dominic's average time per mile (km)? _____

v) What was Leigh's average time per mile (km)? _____

vi) How much faster was Won than Chelsea? _____

vii) What was the average time of Miguel, Dominic, and Arthur? _____

viii) What was the mode of the race times? _____

ix) How much slower was Jessica than Miguel? _____

x) What was the average time of Miguel and Tim? _____

xi) Who was 1.08 minutes faster than Carla? _____

xii) Who was five hundredths of a minute slower than Dominic? _____

xiii) How much faster was Tim than Tia? _____

xiv) Which student came in second place in these results? _____

xv) Which student came in fifth place in these results? _____

xvi) Who was 0.02 minutes faster than Ella? _____

Explore With Technology

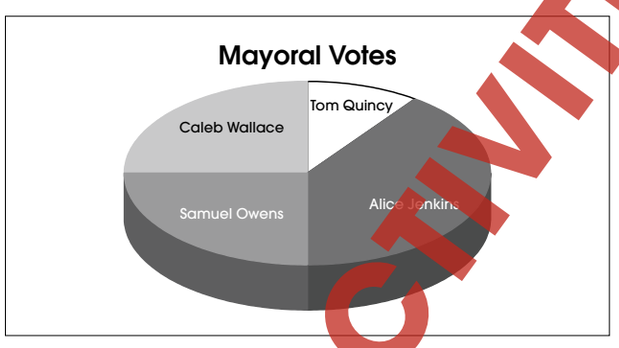
Use a graphing program online or on your computer to graph the results of this race.

Warm-Up Drill Sheet # 2

NAME: _____

4a) The pie chart below represents the percent of votes four candidates received in a mayor's race.

Ex: If 3,600 people voted, how many votes did Caleb Wallace and Samuel Owens receive? 3,600 x 0.5 (50%) = 1800 votes



i) Which candidate won the mayoral race? _____

ii) Which candidate came in last? _____

iii) What two candidates tied in the race? _____

iv) Who received about 40 percent of the vote? _____

v) Alice Jenkins received a little under twice as many votes as which two candidates? _____

vi) Which candidate received one-fifth of the vote that Alice Jenkins received? _____

vii) What fraction of the vote did Alice Jenkins receive? _____

viii) What fraction of the vote did Samuel Owens receive? _____

ix) What fraction of the vote did Caleb Wallace receive? _____

x) What fraction of the vote did Tom Quincy receive? _____

xi) If 3,600 people voted, how many votes did Caleb Wallace receive? _____

xii) If 3,600 people voted, how many votes did Alice Jenkins receive? _____

xiii) If 3,600 people voted, how many votes did Samuel Owens receive? _____

xiv) If 3,600 people voted, how many votes did Tom Quincy receive? _____

xv) The percent of votes Tom Quincy received in this election doubled from the previous election. What percent of the vote did he receive in the previous election? _____

xvi) Alice Jenkins percent of the vote also doubled since the last election? If the trend continues, what percent of the vote will she receive in the next election? _____

NAME: _____

Drill Sheet

Drill Sheet 2

An outlier is a number that is significantly different from the rest of the grouping of numbers.

The following goals were scored at a basketball game.

The goals were scored at 1:56, 2:18, 2:35, 3:19, 4:12, 4:48, 1:56, 3:22, and 12:23.

a) What is the mode? _____

b) What is the median? _____

c) What is the range? _____

d) What is the mean? _____

e) Which time is the outlier? _____

f) Calculate the mean, median, range, and mode without the outlier.

Mean _____

Median _____

Mode _____

Range _____

g) Explain how excluding the outlier changes the data. Is it a significant change. Why or why not?

_____

_____

h) How can you explain the outlier?

_____

_____

Review Sheet

NAME: _____

Review A

Palmer has a bag of marbles. He has 20 marbles in his bag. He has 12 red marbles, 6 orange marbles, and 2 yellow marbles.

Show the probability of choosing each marble in fractions and percentages.

		Fraction	Percent
a)	**Choosing a red marble.**		
b)	**Choosing an orange marble.**		
c)	**Choosing a yellow marble.**		
d)	**Choosing an orange or yellow marble.**		

e) What other questions can you ask and show as a fraction or percent for the marbles in Palmer's bag?

Reflection

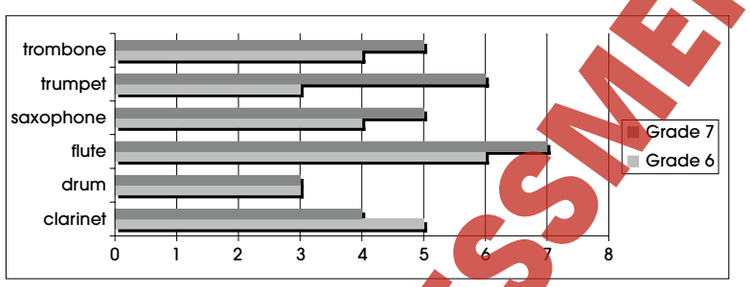
Express the mean, median, mode, and range for the marbles in Palmer's bag. Are these findings significant? Explain.

NAME: _____

Review Sheet

Review B

a) The graph below shows the number of students who play different instruments in the Carroll School band.



i) How many total sixth graders are in the band? _____

ii) How many total seventh graders are in the band? _____

iii) What instrument is played by the greatest number of sixth and seventh graders? _____

iv) What instrument is played by the least number of sixth and seventh graders? _____

v) What instrument is played by an equal number of sixth and seventh graders? _____

vi) How many more seventh graders play trombone than sixth graders? _____

vii) Which instrument is played by twice as many seventh graders as sixth graders? _____

viii) Which instrument is played by more sixth graders than seventh graders? _____

ix) What fraction of the sixth graders play clarinet? _____

x) What fraction of the seventh graders play saxophone? _____

xi) What is the ratio of sixth grade flute players to sixth grade drum players? _____

xii) What is the ratio of seventh grade clarinet players to seventh grade trumpet players? _____

xiii) What percent of the sixth graders play drums? _____

xiv) What percent of the seventh graders play trumpet? _____

xv) What percent of the total sixth and seventh graders play flute? _____

xvi) What percent of the total sixth and seventh graders play saxophone? _____

Probability

As a class or in small groups, roll 2 dice 12 times and record your results below.

a) List the 2-dice combinations you rolled below.

1. _____ 2. _____ 3. _____
4. _____ 5. _____ 6. _____
7. _____ 8. _____ 9. _____
10. _____ 11. _____ 12. _____

b) For each 2-dice combination listed above, list the other different 2-dice combinations you could role to get that same total.

1. _____ 2. _____ 3. _____
4. _____ 5. _____ 6. _____
7. _____ 8. _____ 9. _____
10. _____ 11. _____ 12. _____

c) For each 2-dice combination listed in section a), list the probability of rolling the total number using any 2 dice.

1. _____ 2. _____ 3. _____
4. _____ 5. _____ 6. _____
7. _____ 8. _____ 9. _____
10. _____ 11. _____ 12. _____

d) List the probability of rolling the following totals with 2 dice.

1. _____ 2. _____ 3. _____
4. _____ 5. _____ 6. _____
7. _____ 8. _____ 9. _____
10. _____ 11. _____ 12. _____

Warm-Up Drill Sheet # 2

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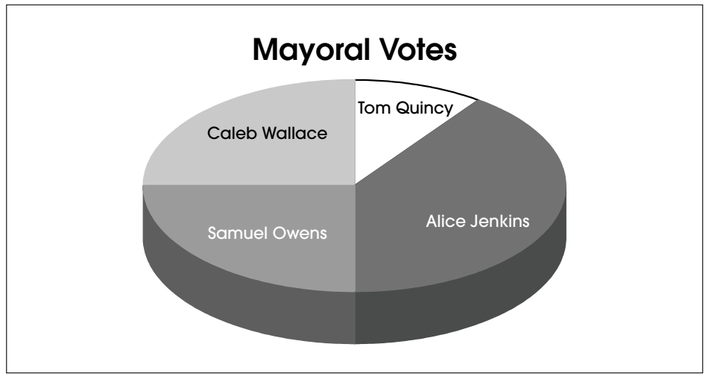

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EASY MARKING ANSWER KEY

4.

a)
i) Alice Jenkins
ii) Tom Quincy
iii) Caleb Wallace and Samuel Owens
iv) Alice Jenkins
v) Caleb Wallace and Samuel Owens
vi) Tom Quincy

vii) 2/5
viii) 1/4
ix) 1/4
x) 1/10
xi) 900 votes

xii) 1440 votes

xiii) 900 votes

xiv) 360

xv) 5%

xvi) 80%

5.

a)
i) Los Angeles
ii) Chicago
iii) Dallas
iv) Vancouver
v) 0.3°F (0.2°C)

vi) 35.1°F (19.5°C)
vii) 70.6°F (21.4°C)

viii) 59.5°F (15.3°C)

ix) Dallas
x) 54.4°F (12.5°C)

xi) New York City

xii) Boston
xiii) Boston

xiv) 36.54 in (928.13 mm)
xv) Vancouver
xvi) Chicago

6.

a)
i) 3 students
ii) 2 more students

iii) 1 student
iv) Question 9

v) Question 2
vi) 3 students

vii) 3 students

viii) 26 students
ix) 26 students
x) 1:1

xi) 5 students

xii) Question 4 and 8

xiii) Question 6
xiv) Question 9
xv) Question 1 and 3

xvi) 20 students

7.

a)
i) Chocolate
ii) Chocolate
iii) Other

iv) Strawberry
v) 21 students
vi) 21 students
vii) 1/7
viii) 1/3

ix) Vanilla

x) 7:6
xi) 4 students

xii) Chocolate
xiii) Vanilla and Mint
xiv) Vanilla
xv) 5 students

xvi) Mint

EZ