NAME: _____

Student Worksheet

Activity One

a) A paper bag has the letters A, B, C, D, and E inside it. It also has the numbers 1, 2, 3.

i) What are your chances of pulling out one letter or number and getting an A? _____

ii) What are your chances of pulling out one letter or number and getting a B or 2? _____

iii) What are your chances of pulling out one letter or number and getting a vowel? _____

iv) What are your chances of pulling out one letter or number and getting a consonant? _____

v) What are your chances of pulling out one letter or number and getting an odd number? _____

vi) What are your chances of pulling out one letter or number and getting an even number? _____

vii) What are your chances of pulling out two numbers from the bag? _____

viii) What are your chances of pulling out a letter from the bag? _____

ix) What are you chances of pulling a number out of the bag? _____

x) What is the ratio of letters to numbers? _____

xi) What is the ratio of odd numbers to even numbers? _____

xii) There are the same amount of vowels as there are what type of numbers? _____

xiii) There are as many numbers as there are what type of letters? _____

xiv) What fraction of the letters and numbers are third in the alphabet or numerical system? _____

xv) What fraction of the letters and numbers are odd numbers? _____

xvi) What fraction of the letters and numbers are even numbers or consonants? _____

NAME: _____

Student Worksheet

Activity Two

a) The table below shows the amount of hits students had during twenty swings in a batting cage.

Batting Results

Name	Number of Hits
Jessica	10
Thomas	8
Erin	12
Gabe	10
Chen	16
Steffani	14

i) Which student had the most amount of hits? _____

ii) Which student had the least amount of hits? _____

iii) Which student hit 80% of the pitches? _____

iv) Which student hit 60% of the pitches? _____

v) Which student hit 40% of the pitches? _____

vi) How many total pitches were hit? _____

vii) How many total pitches were thrown to these students? _____

viii) What percent of the total pitches thrown were hits? _____

ix) What hitters had a 1:1 ratio hits to misses? _____

x) What is the ratio of hits between Gabe and Thomas? _____

xi) What fraction of pitches did Erin hit? _____

xii) Who hit 4/5 of the pitches thrown? _____

xiii) Who hit 2/5 of the pitches thrown? _____

xiv) What player missed 2/5 of the pitches thrown? _____

xv) What player missed 1/5 of the pitches thrown? _____

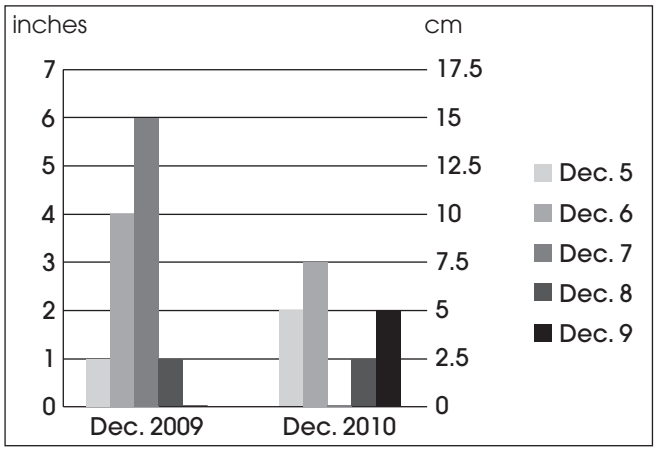
xvi) What percent of the total pitches were misses? _____

NAME: _____

Student Worksheet

Activity Three

a) The following graph shows snowfall in inches and cm for the same period of time during two years.



In a well-developed paragraph, describe what type of information is found on this graph and list three conclusions that can be drawn using this graph.

NAME: _____

Student Worksheet

Activity Four

a) The results of a survey given to a group of students in a middle school are shown below.

Respondents:	Male: 36	Female: 44
Favorite subject:	Math: 18	Language/Literacy: 12
	Science: 15	History: 15
	Other: 20	
Time spent reading each night:	Less than 10 minutes: 22	
	Between 10 and 30 minutes: 48	
	More than 30 minutes: 10	
Time spent on homework each night: (not including reading)	Less than 10 minutes: 5	
	Between 10 and 30 minutes: 50	
	More than 30 minutes: 25	

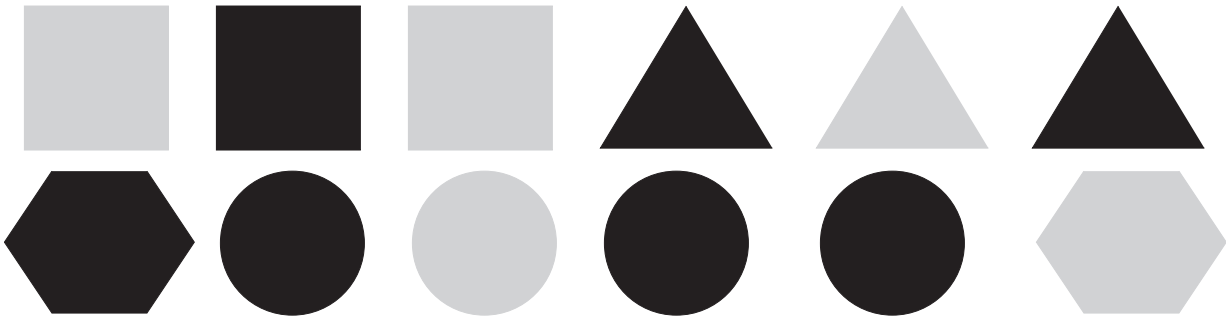
i) How many total respondents were there? _____
ii) What percent of the respondents were male? _____
iii What percent of the respondents were female? _____
iv) One fourth of the students chose which choice as their favorite subject? _____
v) What is the ratio of students who preferred math to students who preferred language/literacy? _____
vi) How many more students liked math than liked history? _____
vii) The ratio of which two favorite subjects was 1:1? _____
viii) What fraction of total students like either science or history? _____
ix) How many students read for more than 10 minutes every night? _____
x) What fraction of the students read for more than 30 minutes each day? _____
xi) What percent of the students read only 22 minutes each day? _____
xii) How many students read 30 minutes or less each night? _____
xiii What percent of the students read less than 10 minutes each night? _____
xiv) What is the ratio of students who read more than 30 minutes to those who read between 10 minutes and 30 minutes? _____
xv) What percent of students spend less than 30 minutes on homework each night? _____
xvi) What percent of students spend more than 30 minutes on homework each night? _____

NAME: _____

Student Worksheet

Activity Five

a) The following shape tiles were found inside a bag.



i) What fraction of the tiles are black? _____

ii) What percent of the tiles are gray? _____

iii) What fraction of the tiles are triangles? _____

iv) What percent of the tiles are hexagons? _____

v) What are your chances of selecting a gray shape tile from the bag? _____

vi) What are your chances of selecting a circle from the bag? _____

vii) What are your chances of selecting a square or triangle from the bag? _____

viii) What shape are you most likely to choose from the bag? _____

ix) What shape are you least likely to choose from the bag? _____

x) What percent chance do you have of choosing a black square from the bag? _____

xi) What percent chance do you have at choosing a black triangle from the bag? _____

xii) What percent chance to do have at pulling out a black circle or gray triangle from the bag? _____

xiii) What is the ratio of black triangles to gray squares? _____

xiv) What is the ratio of circles to hexagons? _____

xv) What is the ratio of black shapes to gray shapes? _____

xvi) What is the ratio of multi-sided shapes to non-sided shapes? _____

NAME: _____

Student Worksheet

Activity Six

a) The following table shows the popularity of four lunches in sixth, seventh, and eighth grade at Brown Middle School. It shows the number of students who voted for each item as their favorite.

Grade	Pizza	Salad	Sub	Hamburger
6	18	12	7	13
7	22	10	8	16
8	21	12	5	14

i) How many total students completed this survey? _____

ii) What is the average number of students per grade? _____

iii) How many more students liked pizza than salad in grade 6? _____

iv) Twice as many people in grade 7 liked what food than liked subs in grade 8? _____

v) Half as many people in what grade liked what food than liked hamburgers in grade 8? _____

vi) One-sixth more people in what grade liked what food than liked salad in grade 6? _____

vii) One-seventh of the total students asked in grade 7 chose what as their favorite lunch food? _____

viii) Fifty percent of the students in grade 8 chose which two items as their favorite? _____

ix) What is the ratio of students who liked pizza to salad in grade 8? _____

x) What is the only 1:1 ratio found on this chart? _____

xi) What is the ratio of people who preferred hamburgers in grade 7 to grade 8? _____

xii) What fraction of students in grade 7 chose hamburgers as their favorite? _____

xiii) What is the average number of students who selected salad as a favorite? _____

xiv) What is the average number of students who selected hamburgers as their favorite? _____

xv) What is the average number of students who selected pizza as their favorite? _____

xvi) What is the average number of students who selected sub as their favorite? _____

1.

a)

i) 1 in 8

ii) 2 in 8 or 1 in 4

iii) 2 in 8 or 1 in 4

iv) 3 in 8

v) 2 in 8 or 1 in 4

vi) 1 in 8

vii) 2 in 8 or 1 in 4

viii) 5 in 8

ix) 3 in 8

x) 5:3

xi) 2:1

xii) odd numbers

xiii) consonants

xiv) 1/4

xv) 1/4

xvi) 1/2

2.

a)

i) Chen

ii) Thomas

iii) Chen

iv) Erin

v) Thomas

vi) 70

vii) 120

viii) 58.3%

ix) Jessica and Gabe

x) 5:4

xi) 3/5

xii) Chen

xiii) Thomas

xiv) Erin

xv) Chen

xvi) 41.7%

3.

a)

Answers will vary. More snow fell in December 2009 than December 2010. Students might notice the same amount of snow fell on December 8. Two more inches of snow fell on December 9, 2010, than December 9, 2009.

4.

a)

i) 80 respondents

ii) 45% male

iii) 55% female

iv) Other

v) 3:2

vi) 3 more students

vii) Science and History

viii) 3/8

ix) 58 students

x) 1/8

xi) 60%

xii) 70 students

xiii) 27.5%

xiv) 5:24

xv) 68.75%

xvi) 31.25%

5.

a)

i) 7/12

ii) 5/12

iii) 1/4

iv) 1/6

v) 5 in 12

vi) 4 in 12 or 1 in 3

vii) 6 in 12 or 1 in 2

viii) Circle

ix) Hexagon

x) 8.3% chance

xi) 16.7% chance

xii) 33.3% chance

xiii) 1:1

xiv) 2:1

xv) 7:5

xvi) 2:1

6.

EZ

a)

i) 158

ii) 53 students

iii) 6 more students

iv) Salad

v) Subs in grade 6

vi) Hamburger in grade 8

vii) Sub

viii) Pizza and Sub

ix) 7:4

x) Salad in grade 6 and 8

xi) 8:7

xii) 2/7

xiii) 11 students

xiv) 14 students

xv) 20 students

xvi) 7 students

(these answers are for the 6 free bonus pages, see page 3 for download instructions)