Summary Note: The Math class is found in the java.lang package, so it is automatically imported into all Java programs. (It is a static class so no object can be created for it.)
round - does normal rounding (0.5 goes up)
(Note: Our regular book does not discuss this one.)
sqrt - finds the square root of positive arguments (values inside the parentheses)
(Note: Taking the square root of a negative number results in NaN error- **N**ot **a N**umber).
abs - finds the absolute value (positives stay positive and negatives become positive)
ceil - finds the next highest integer if not already an integer
floor - finds the next lowest integer if not already an integer (the greatest integer function, [ ], in math)
pow - raises the first argument (the base) to the second argument (the exponent)
(page 92 of the blue books lists other Math class methods.)

II. Math Class nested methods

1) a) Open **P1ch2lab2b.java**
(Note: This lab will take the square root of a negative number by taking the absolute value of it first.)
b) Run the program inputting -4
c) Complete the output below

n	u	m		=		-	4	.	0																			
M	a	t	h	.	s	q	r	t	(	M	a	t	h	.	a	b	s	(	n	u	m	)	)		=					

2) a) Open **P1ch2lab2c.java** (Do NOT Run yet)
b) Read the comments at the bottom of the program and do as they direct so that num1 will be raised by num2 and result in an answer of 8.0
c) Write the line of code that produces this result
(Note: Do not use the numbers 2 and 3 in the code but use the variables num1 and num2)

c.println _____ ;

Do EXERCISE 6B #2 on pages 86-87 (just show the answer)

2) a) _____

b) _____

c) _____

d) _____

e) _____

Turn in this sheet to be graded!

Unit 2 Lab 2 - Math Class methods continued

3) a) Run the program inputting: 4.1
b) Complete the output below using only the number of squares provided

n	u	m		=		4	.	1																				
M	a	t	h	.	r	o	u	n	d	(	n	u	m	)		=												
M	a	t	h	.	s	q	r	t	(	n	u	m	)		=													
M	a	t	h	.	a	b	s	(	n	u	m	)		=														
M	a	t	h	.	c	e	i	l	(	n	u	m	)		=													
M	a	t	h	.	f	l	o	o	r	(	n	u	m	)		=												
M	a	t	h	.	p	o	w	(	n	u	m	,	2	)		=												
M	a	t	h	.	p	o	w	(	n	u	m	,	3	)		=												
M	a	t	h	.	p	o	w	(	n	u	m	,	n	u	m	)		=										

3) a) Run the program inputting: -4.9
b) Complete the output below using only the number of squares provided

n	u	m		=		-	4	.	9																			
M	a	t	h	.	r	o	u	n	d	(	n	u	m	)		=												
M	a	t	h	.	s	q	r	t	(	n	u	m	)		=													
M	a	t	h	.	a	b	s	(	n	u	m	)		=														
M	a	t	h	.	c	e	i	l	(	n	u	m	)		=													
M	a	t	h	.	f	l	o	o	r	(	n	u	m	)		=												
M	a	t	h	.	p	o	w	(	n	u	m	,	2	)		=												
M	a	t	h	.	p	o	w	(	n	u	m	,	3	)		=												
M	a	t	h	.	p	o	w	(	n	u	m	,	n	u	m	)		=										

3) a) Run the program inputting: -4.1
b) Complete the output below using only the number of squares provided

n	u	m		=		-	4	.	1																			
M	a	t	h	.	r	o	u	n	d	(	n	u	m	)		=												
M	a	t	h	.	s	q	r	t	(	n	u	m	)		=													
M	a	t	h	.	a	b	s	(	n	u	m	)		=														
M	a	t	h	.	c	e	i	l	(	n	u	m	)		=													
M	a	t	h	.	f	l	o	o	r	(	n	u	m	)		=												
M	a	t	h	.	p	o	w	(	n	u	m	,	2	)		=												
M	a	t	h	.	p	o	w	(	n	u	m	,	3	)		=												
M	a	t	h	.	p	o	w	(	n	u	m	,	n	u	m	)		=										

Go to the next page

Unit 2 Lab 2 - Math Class methods

Name _____

class hour _____ Pts: 10

I. 6.2 Math Class methods

1) a) Open **P1ch2lab2.java**

b) Run the program inputting 4

c) Complete the output below using only the number of squares provided

n	u	m		=		4	.	0																					
M	a	t	h	.	r	o	u	n	d	(	n	u	m	)		=													
M	a	t	h	.	s	q	r	t	(	n	u	m	)		=														
M	a	t	h	.	a	b	s	(	n	u	m	)		=															
M	a	t	h	.	c	e	i	l	(	n	u	m	)		=														
M	a	t	h	.	f	l	o	o	r	(	n	u	m	)		=													
M	a	t	h	.	p	o	w	(	n	u	m	,	2	)		=													
M	a	t	h	.	p	o	w	(	n	u	m	,	3	)		=													
M	a	t	h	.	p	o	w	(	n	u	m	,	n	u	m	)		=											

2) a) Run the program inputting: -4

b) Complete the output below using only the number of squares provided

n	u	m		=		-	4	.	0																				
M	a	t	h	.	r	o	u	n	d	(	n	u	m	)		=													
M	a	t	h	.	s	q	r	t	(	n	u	m	)		=														
M	a	t	h	.	a	b	s	(	n	u	m	)		=															
M	a	t	h	.	c	e	i	l	(	n	u	m	)		=														
M	a	t	h	.	f	l	o	o	r	(	n	u	m	)		=													
M	a	t	h	.	p	o	w	(	n	u	m	,	2	)		=													
M	a	t	h	.	p	o	w	(	n	u	m	,	3	)		=													
M	a	t	h	.	p	o	w	(	n	u	m	,	n	u	m	)		=											

3) a) Run the program inputting: 4.9

b) Complete the output below using only the number of squares provided

n	u	m		=		4	.	9																					
M	a	t	h	.	r	o	u	n	d	(	n	u	m	)		=													
M	a	t	h	.	s	q	r	t	(	n	u	m	)		=														
M	a	t	h	.	a	b	s	(	n	u	m	)		=															
M	a	t	h	.	c	e	i	l	(	n	u	m	)		=														
M	a	t	h	.	f	l	o	o	r	(	n	u	m	)		=													
M	a	t	h	.	p	o	w	(	n	u	m	,	2	)		=													
M	a	t	h	.	p	o	w	(	n	u	m	,	3	)		=													
M	a	t	h	.	p	o	w	(	n	u	m	,	n	u	m	)		=											

OVER