What's The Best Way to Serve Lion Meat?

Complete each table and graph. For table cells that have letters, write the letter in the corresponding box at the bottom of the page. (Round decimals to the nearest whole number.)

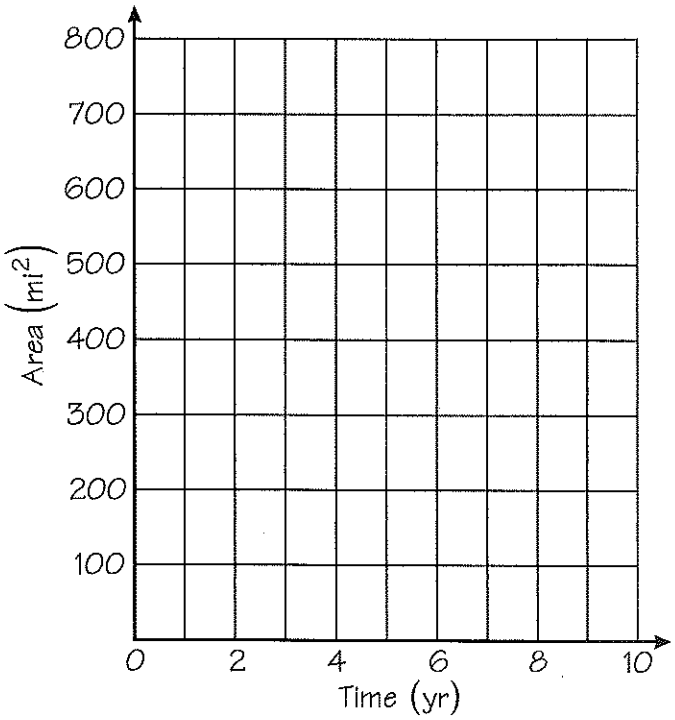
Situation #1

On the island of Exponia, there are 800 mi^2 of rain forest and 100 mi^2 of farmland. However, the area of rain forest is decreasing 20% each year, and the area of farmland is increasing 20% each year. Complete the table and graph to show the area of each for the next 10 years.

Let t = Time (yr)
R = Rain forest (mi^2)
F = Farmland (mi^2)

Equations:
$R =$
$F =$

t (yr)	R (mi^2)	F (mi^2)
0		
1		
2	A	
3		S
4		
5		
6		
7		
8		
9	S	
10		E



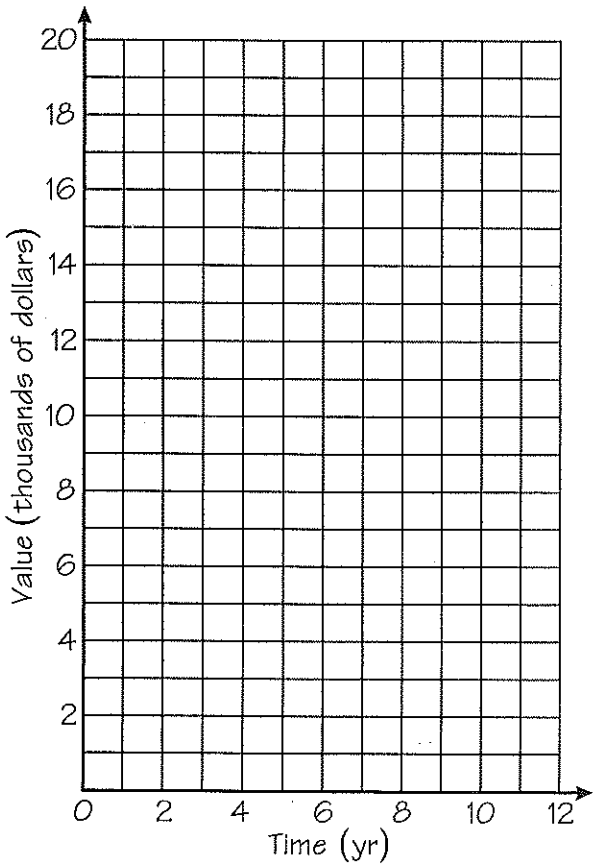
Situation #2

One fine day, Klash bought a new car for $20,000 and also put $3000 in a savings account. He expects the value of the car to decrease by about 15% each year, but he expects the value of his savings to increase 8% each year. Complete the table and graph to show the value of each for the next 12 years.

Let t = Time (yr)
V_C = Value of car ($)
V_S = Value of savings ($)

Equations:
$V_C =$
$V_S =$

t (yr)	V_C ($)	V_S ($)
0		
1	H	
2		A
3		
4		
5		
6	A	
7		M
8		
9		
10		I
11	D	
12		N



3499	173	3491	7543	575	5141	512	7555	619	6711	3347	6477	107	17,000

What Is The Scientific Name for The Study of Shopping?

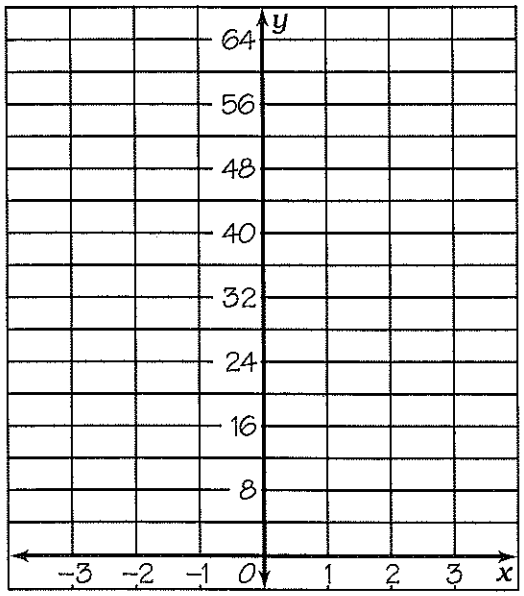
1-12	
2	S
10	O
64	L
16	D
13.1 cm	O
12.0 cm	W
4	N
18 cm	S
1	T
11.8 cm	A
8	G
72	O
16.2 cm	E
15.4 cm	B
14.6 cm	Y
32	S

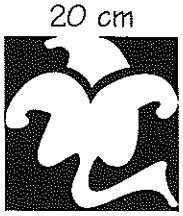
13-24	
$530.60	T
$96,000	H
$572.94	A
$574.34	B
$541.22	A
$72,000	T
$585.83	U
$510.00	P
6.25 g	N
$538.72	E
$12,000	Y
$563.08	E
7.5 g	T
50 g	O
$520.20	U
$552.04	R

Cross out the letter next to each correct answer (some answers are rounded). When you finish, the answer to the title question will remain.

PART 1. Graph $y = 8 \cdot 2^x$ for the domain $[-3, -2, -1, 0, 1, 2, 3]$. First, complete the table, then graph the function.

x	y
−3	1
−2	2
−1	3
0	4
1	5
2	6
3	7





PART 2. Suppose you photocopy the square image at the left, reducing it to 90% of its original size. Then, suppose you make a copy of the copy, reducing the image to 90% of the first copy size. And suppose you continue this process through five reductions. Complete the table to show the width of the image after each reduction.

Copy No.	Width (cm)
0	20
1	8
2	9
3	10
4	11
5	12

Q	Value ($)
0	500.00
1	13
2	14
3	15
4	16
5	17
6	18
7	19
8	20

PART 3. Teva deposited $500 in a bank account that pays 8% interest, compounded quarterly. Complete the table at the left to show the value of her investment at the end of each quarter for the next two years. (Q = quarter number)

PART 4. Suppose an investment of $3000 doubles in value every 12 years.

21 What will be its value after 24 years?

22 What will be its value after 60 years?

PART 5. Cesium-137 has a half life of 30 years. Suppose a lab stored a 100 g sample in 1970.

23 How many grams remained in the year 2000?

24 How many grams will remain in 2090?