

EXERCISE 2

1. The Chinese zodiac assigns animals to years in a 12 year cycle. One 12 year cycle is shown in the table below. The pattern repeats from there, with 2012 being another year of the dragon, and 1999 being another year of the hare.

<i>Year</i>	<i>Animal</i>
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2000	Dragon
2001	Snake
2002	Horse
2003	Sheep
2004	Monkey
2005	Rooster
2006	Dog
2007	Pig
2008	Rat
2009	Ox
2010	Tiger
2011	Hare

Write a program that reads a year from the user and displays the animal associated with that year. Your program should work correctly for any year greater than or equal to zero, not just the ones listed in the table.

2. At a particular university, letter grades are mapped to grade points in the following manner:

<i>Letter</i>	<i>Grade Points</i>
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A+	4.0
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
F	0

Write a program that begins by reading a letter grade from the user. Then your program should compute and display the equivalent number of grade points. Ensure that your program generates an appropriate error message if the user enters an invalid letter grade.

3. At a particular company, employees are rated at the end of each year. The rating scale begins at 0.0, with higher values indicating better performance and resulting in larger raises. The value awarded to an employee is either 0.0, 0.4, or 0.6 or more. Values between 0.0 and

0.4, and between 0.4 and 0.6 are never used. The meaning associated with each rating is shown in the following table. The amount of an employee's raise is \$2,400.00 multiplied by their rating.

<i>Rating</i>	<i>Meaning</i>
0.0	Unacceptable Performance
0.4	Acceptable Performance
0.6 or more	Meritorious Performance

Write a program that reads a rating from the user and indicates whether the performance for that rating is unacceptable, acceptable or meritorious. The amount of the employee's raise should also be reported. Your program should display an appropriate error message if an invalid rating is entered.