Before we begin, are there any questions from last day's work?

(9.3 Credit Cards)

Today's Learning Goal(s):

By the end of the class, I will be able to:

a) calculate the annual rate of depreciation of a vehicle.
   This means determine the rate as a percent.
b) calculate the amount of money that a vehicle depreciates and calculate the (reduced) value of the vehicle.

Correct SWYK 8.2

Already Done: Fall 2017

MBF 3CI   (9.4_9.5) Vehicle Depreciation   Date: _Jan. 8 /18_

Owning a vehicle involves many operating costs, including depreciation.
When an item, such as a vehicle, decreases in value over time, this is called **depreciation**

Ex. 1
Calculate the annual rate of depreciation, to the nearest tenth of a percent.

Value at start of year	Value at end of year
$18 941	$17 162

$$\text{Rate of Depreciation} = \frac{\text{Difference in Price}}{\text{Original Price}} \times 100\%$$

$$= \frac{18941 - 17162}{18941} \times 100\%$$

$$= \frac{1779}{18941} \times 100\%$$

$$\doteq 9.39$$

$$\doteq 9.4 \%$$ 9.4%

Ex. 2
The chart gives the estimated total rate of depreciation for certain economy car for each of the first 3 years.
All percentages are based on the **original cost** of the vehicle.

After 1 year	25%
After 2 years	38%
After 3 years	45%

If the original price of the car is $14 995, complete this chart:

Year	Total amount of depreciation	Value of vehicle at end of the year	Annual amount of depreciation
1 (1st see below chart:)	$3 748.75	$14 995 - $3 748.75 = $11 246.25	$14 995 - $11 246.25 = $3 748.75
2	$5 698.10	$14 995 - $5 698.10 = $9 296.90	$11 246.25 - $9 296.90 = $1 949.35
3	$6 747.75	$14 995 - $6 747.75 = $8 247.25	$9 296.90 - $8 247.25 = $1 049.65

Year 1 Depreciation = 25% of $14 995

$$= 0.25 \times \$14\ 995$$

$$= \$3\ 748.75$$

Year 2 Depreciation = 38% of $14 995

$$= 0.38 \times \$14\ 995$$

$$= \$5\ 698.10$$

Year 3 Depreciation = 45% of $14 995

$$= 0.45 \times \$14\ 995$$

$$= \$6\ 747.75$$

Entertainment: pp. 494495 #7, 8, 11
Compound Interest Review Sheet #1-6, 11, 12 (if not already done)
Correct SWYK 8.2 (if not done at beginning of class)   _Already Done: Fall 2017_

Attachments

Quiz 8.2 Solns (Simple & Compound Interest_Fall 2013).pdf