

6-7 Day 2 Depreciating a Car

Math Skill Builder

1. **Divide** money amounts by money amounts to find a percent. Round the percent to the nearest tenth.

a) $\$1,260 \div \$9,400$

$.13404$

13.4%

b) $\$5,200 \div \$28,600$

$.181818$

18.2%

Rate of Depreciation

When the straight-line method of finding depreciation is used, the average annual depreciation may be shown as a percent of the original cost. The percent is called the *rate of depreciation*.

FORMULA:

Rate of Depreciation =

$$\text{Average Annual Depreciation} \div \text{Original Cost}$$

Example 2:

- a) A \$12,000 car is sold 3 years later for \$6,960. What is the rate of depreciation?

$$\text{Total Depreciation} = 12000 - 6960 = \$5,040$$

$$\text{Average Annual Depreciation} = \frac{5040}{3} = \$1,680$$

$$\text{Rate of Depreciation} = \frac{1680}{12000} = .14 = \boxed{14\%}$$

- b) A new car that cost \$23,000 is worth \$16,100 a year later. What was the rate of depreciation for the one year?

$$\text{Total Depreciation} = 23000 - 16100 = \$6,900$$

$$\text{Average Annual Depreciation} = \frac{6900}{1} = \$6,900$$

$$\text{Rate of Depreciation} = \frac{6900}{23000} = .3 = \boxed{30\%}$$

CLOSURE:

1. Billy Macon sold his car for \$368. He paid \$9,200 for the car when he bought it 12 years ago. What was his annual rate of depreciation?

$$\text{Total Depreciation} = 9200 - 368 = \$8,832$$

$$\text{Average Annual Depreciation} = \frac{8832}{12} = \$736$$

$$\text{Rate of Depreciation} = \frac{736}{9200} = .08 = \boxed{8\%}$$

Name: _____ Date: _____ Period: _____

Worksheet 6-7 Day 2

1. A wholesale company sold one of its trucks for \$5,200. The truck cost \$26,795 when it was bought seven years ago.
 - a) What was the total depreciation on the truck for the seven-year period?

 - b) What was the average annual depreciation?

 - c) What was the average annual rate of depreciation, rounded to the nearest tenth percent?

2. Nanette Dorow bought a four-wheel drive truck for \$24,920. She used the truck for five years and then traded it in for \$6,030.
 - a) What was the average annual depreciation?

 - b) What was the average annual rate of depreciation, rounded to the nearest tenth percent?

3. Spencer Frost estimates that his new car that cost \$24,380 would be worth \$13,500 after two years and \$8,230 after five years.

a) Based on Spencer’s estimate, what will be the annual rate of depreciation, rounded to the nearest whole percent, for the first two years?

b) What will the percent be for the five years?

4. Find the rate of depreciation. Round answers to the nearest percent.

	Original Cost	Resale or Trade-in Value		Rate of Depreciation
		At end of	Amount	
1.	\$14,500	4 years	\$5,600	
2.	\$28,350	3 years	\$14,700	
3.	\$9,450	6 years	\$1,800	