Module 7   Ratio, Proportion, and Percent
Lesson 7   Problem Solving with Percents

Additional Practice 7.7

Find each percent of change. Tell if it is a percent of increase or decrease.

1. Original amount: 5

New amount: 1

80% decrease

2. Original amount: 44

New amount: 40

$9\dfrac{1}{11}\%$ **decrease**

3. Original amount: 6

New amount: 18

200% increase

4. Student enrollment at one school has increased 32% from its original enrollment of 300 students. What is the school's enrollment now?

The school's enrollment is 396 students.

5. The cost of a shirt was reduced from $20 to $14. Find the percent of decrease.

30% decrease

6. A movie theater is increasing the cost of all of its tickets. Complete the chart below.

Type of Ticket	Original Cost	Percent of Increase	New Cost
Child	$4	12.5%	**$4.50**
Adult	$8	**9.375%**	$8.75
Senior Citizen	**$4**	25%	$5

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Find the amount of simple interest.

7. *P*: $50
   r: 10%
   t: 3 years

   $15

8. *P*: $250
   r: 3.5%
   t: 5 years

   $43.75

9. *P*: $1,400
   r: 7%
   t: 9 months

   $73.50

10. Alex saved $500 at an interest rate of 4% compounded monthly. Complete the table below to find the new amount after three months.

Month	Principal	*Prt*		Interest	New Amount
1	$500	$500(0.04)	$\left(\dfrac{1}{12}\right)$	$1.67	$501.67
2	$501.67	**$501.67(0.04)**	$\left(\dfrac{1}{12}\right)$	**$1.67**	**$503.34**
3	**$503.34**	**$503.34(0.04)**	$\left(\dfrac{1}{12}\right)$	**$1.68**	**$505.02**

11. Diane will save $2,000 for two years.

   a. How much interest will she earn if the interest rate is 6.75% compounded annually?

   $279.11 interest

   b. How much *more* interest would she earn if the interest was compounded semiannually?

   $4.87