

## Percent Increase/Decrease Problems

1. Alycia invested \$8000 in a stock. In the first year the stock decreased in value by 10%. In the second year the stock decreased in value by 25%. What percentage gain is required in the third year in order for Alycia's stock to return to its original value?
2. Dylan invested \$250,000 in a mutual fund. In the first year the mutual fund decreased in value by 20%. In the second year the mutual fund decreased in value by 25%. What percentage gain is required in the third year in order for Dylan's mutual fund to return to its original value?
3. Tina invested \$30,000 in a stock. In the first year the stock increased in value by 10%. In the second year the stock decreased in value by 20%. What percentage gain is required in the third year in order for Tina's stock to return to its original value?
4. Khalid invested \$100,000 in a mutual fund. In the first year the mutual fund decreased in value by 20%. In the second year the mutual fund increased in value by 25%. What percentage gain is required in the third year in order for Khalid's mutual fund to return to its original value?
5. Leticia invested \$60,000 to become a partner in a small business. In the first year her share in the business decreased in value by 50%. In the second year her share in the business increased in value by 60%. What percentage gain is required in the third year in order for Leticia's share in the business to return to its original value?
6. Emeril invested \$40,000 to become a partner in a restaurant. In the first year his share in the restaurant decreased in value by 25%. In the second year his share in the restaurant increased in value by 10%. What percentage gain is required in the third year in order for Emeril's share in the restaurant to return to its original value?
7. Rhianna invested \$10,000 in a mutual fund. In the first year the mutual fund decreased in value by 20%. In the second year the mutual fund decreased in value by 10%. In the third year the mutual fund increased in value by 15%. What percentage gain is required in the fourth year in order for Rhianna's mutual fund to return to its original value?
8. Ming invested \$50,000 in a mutual fund. In the first year the mutual fund decreased in value by 6%. In the second year the mutual fund decreased in value by 10%. In the third year the mutual fund decreased in value by 10%. What percentage gain is required in the fourth year in order for Ming's mutual fund to return to its original value?
9. In the year 2007, Donald's stock portfolio decreased in value by 25%. In the year 2008 his stock portfolio decreased in value by another 40%. What percentage gain is required in 2009 in order for Donald's stock portfolio to return to its value at the beginning of 2007?
10. In the year 2007, Giada's retirement fund decreased in value by 8%. In the year 2008 her retirement fund decreased in value by another 10%. What percentage gain is required in 2009 in order for Giada's retirement fund to return to its value at the beginning of 2007?