

Future Value and Present Value

1. Assuming that inflation averages 4% p.a., what is the equivalent value of \$1000
 - a. in three years?
 - b. in eight years?
2. Assuming that inflation will average 6% p.a. for the next ten years, what is the equivalent value of \$5000
 - a. in six years?
 - b. in ten years?
3. Lindsay was given a bottle of 2006 Grange Hermitage wine when he graduated from high school in 2002. Its value at that time was \$230. Rather than drink it, he decided to keep it until 2026 and then re-sell it. Assume that the value of the wine will rise by 15% per year on average.
 - a. Draw the time value diagram.
 - b. What will the value of the wine be in 2012?
4. A six-cylinder Holden in 1955 cost £803. If the cost of cars increased at the same rate as inflation (4% per year, on average), what would be the cost of a Holden in 2006?
5. A unit in Noosa sold for \$4 million dollars in 1998. If the average increase in the cost of units in Noosa from 1998 to 2006 was 12%, what would the unit be worth today?

Future Value and Present Value Worksheet II

1. Assuming that inflation averages 4% p.a., what was the equivalent value of \$1000
 - a. three years ago?
 - b. ten years ago?
2. Assuming that the inflation rate has averaged is 6% p.a., what was the equivalent value of \$8000
 - a. last year?
 - b. thirty years ago?
3. The median house price in Brisbane in 2006 is \$350 000. If house prices have increased on average by 11% per year over the past 10 years, what was the median house price in Brisbane in 1996?
- 4*. House prices in Rockhampton are projected to increase at an average rate of 6% p.a.
 - a. How many years will it take for a house that sells for \$190 000 in 2006 to double cost?
 - b. How many years will it take for a house that sells for \$400 000 in 2006 to double cost?
5. A unit in Noosa sold for \$4 million dollars in 1998.
 - a. If the average annual increase in the price of the unit was 9%, what would the unit have sold for in 1970?
 - b*. Assuming that the unit continues to gain in value at the same rate, in what year could you have bought the unit for \$100 000?
- 6.** You have a payment of \$4000 due to you in one year, and a second payment of \$6000 due in three years. Assuming the interest rate is 8% p.a., find the equivalent value of these payments if instead of being paid on the due dates they are both paid today.