Year 10 Number Worksheet

1. Evaluate: $(998)^3$

2. A problem in Mathematics is given to four students A, B, C and D. Their chances of solving the problem respectively are 1/2, 1/3, 1/4 and 1/5. What is the probability that the problem will be solved by at least one student?

3. A dealer advertises that a computer is sold at $450 cash down followed by two yearly installments of $680 and $590 at the end of the first and second year respectively. If the interest charged is 18% per annum compounded annually, find the cash price of the computer.

4. Ram borrowed Rs.2,500 from Shankar at 12% per annum C.I. After 2 years, he gave Rs.2936 and a radio to Shankar to clear the account. Find the cost of the radio.

5. Anupam deposits Rs.1,600 per year in a recurring deposit account for three years

   at the rate of 9% p.a. simple interest. Find the amount she will get at the time of maturity

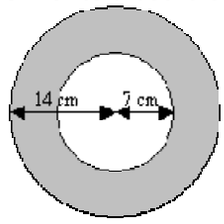
6. A sum of $4,920 was borrowed at 5% p.a. compound interest. The loan was paid back in 2 equal instalments in two years. Find the value of each installment.

7. A man borrows Rs. 5,800 at 12% per annum interest, compounded semi-annually. He repays $1,800 at the end of every six months. Calculate the amount outstanding at the end of the third payment. Give your answer to the nearest rupee

8. A bag contains 5 green and 7 red color balls. Two color balls are taken out one after the other, from the bag. What is the probability of one is green and the other is red?

9. If Mr. Peter wishes to have $ 1000000 to retire with at his age of 60, what will he need to invest this year if he is 30 and is given 5% interest compounded annually?

10. A dart is thrown at random onto a board that has the shape of a circle as shown below.



Calculate the probability that the dart will hit the shaded region. (Use $\pi = \frac{22}{7}$)