

Gen Math - Financial Math Worksheet



1. Your parent(s) wants to invest in a Pension Fund to get annual annuity of \$10,000 forever. How much money he should put in the Pension Fund? The Pension Fund earns annual interest @5%.

- A. \$50,000
- B. \$120,000
- C. \$200,000
- D. \$2,000,000

2. You want to purchase a new house being constructed by a real estate firm. The house will be ready for possession at the end of two years. There are two options for payment:

Option I: Pay \$100,000 today

Option II: Pay \$121,000 at the time of taking possession.

What is the interest rate charged by the builder?

- A. 0%
- B. 10%
- C. 10.5%
- D. 21%

3. If the interest rate is quoted as 6% pa, what amount needs to be invested in order for the investment to return \$850 at year's end?

4. Jan and Bob wish to save \$10 000 for their granddaughter's university expenses. They wish to have this amount available in 8 years' time. Calculate the single sum to be invested at 5% pa compounded annually.

5. Determine the single sum to be deposited if \$10 000 is required in 5 years' time and terms of 3% pa (compounded quarterly) are available.

6. A principal of \$1000 is to be invested for three years. Determine which is the better investment option: (i) 6% pa simple interest, (ii) 5.9% pa compounded annually or (iii) 5.85% pa compounded half-yearly.

7. An investor purchases 1000 shares in a company at a price of \$3.98, with a dividend yield of 5.5% the purchase price. Brokerage costs are 1% of the purchase price. One year later, the shares sold at \$4.80. Calculate the total earnings over the year, after costs.

8. Heidi's funds in a superannuation scheme have a future value of \$740000 in 20 years' time. The interest rate is 4% per annum and earnings are calculated semi-annually. What single amount could be invested now to produce the same result over the same period of time at the same interest rate?

9. At the end of 12 years, a netball club needs to replace goal posts and other club equipment. It is estimated the replacement cost will be \$10 000. How much will the club need to deposit each year to acquire needed replacement cost if earning 5% interest?

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10. Jay bought a computer for \$3600. Find the amount that the computer would depreciate each year to be worth nothing after 3 years (i.e. the value is \$0), if the straight line method of depreciation is used.

Note: You may use formulae and standard tables to perform calculations wherever required