

Use both non-calculator and calculator methods for questions

1 and 2

1. Find the amount in the bank when £6000 is invested at 5% per annum for 2 years
2. Find the amount in the bank when £20000 is invested at 10% per annum for 3 years
3. Find the amount when £750 is invested for 4 years at 8% per annum
4. Find the amount when £15000 is invested for 9 years at 3% per annum

Use both non-calculator and calculator methods for questions 5 and 6

5. Find the value of a 2 year old car that cost £7000 new and depreciates at 20% per annum
6. Find the value of a 3 year old car that cost £10,000 new and depreciates at 10% per annum.
7. Find the value of a 5 year old machine that cost £65000 new and depreciates at 25% per annum.
8. Find the value of a 7 year old machine that cost £35000 new and depreciates at 32% per annum

COMPOUND INTEREST / DEPRECIATION

EXERCISE

1.

YR1	£6000 £ 300 +	$£6000 \times 1.05^2$ $= £6,615$
	£6300 £ 315 +	
YR2	£6,615	

2.

YR1	£20,000 £ 2,000 +	$£20,000 \times 1.10^3$ $= £26,620$
	£22,000 £ 2,200 +	
YR2	£24,200 £ 2,420 +	
YR3	£26,620	

3. $A = P(1 + \frac{r}{100})^n$ $A = £750 \times 1.08^4 = £1020.37$

4. $A = P(1 + \frac{r}{100})^n$ $A = £15,000 \times 1.03^9 = £19,571.60$

5.

YR1	£7000 £ 1400 -	$£7000 \times 0.80^2$ $= £4,480$
	£5600 £ 1120 -	
YR2	£4,480	

6.

YR1	£10,000 £ 1,000 -	$£10,000 \times 0.90^3$ $= £7,290$
	£9,000 £ 900 -	
YR2	£8,100 £ 810 -	
YR3	£7,290	

7. Value = $P(1 - \frac{r}{100})^n$ Value = $£65,000 \times 0.75^5 = £15,425$

8. Value = $P(1 - \frac{r}{100})^n$ Value = $£35,000 \times 0.68^7 = £2,353$

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