∑ DANEMATHICS
FREE CAPS MATHS RESOURCES

GRADE 10 · FINANCE AND GROWTH

Hire Purchase, Exchange Rates & Population Growth (Grade 10)

EXAM-STYLE CLASS TEST

MARKS	DURATION	QUESTIONS
37	1 hour	3

Name: ..... Class: .....

Date: .....

MARK ____ / 37

INSTRUCTIONS AND INFORMATION

1. Answer **ALL** the questions in this question paper.
2. Answer QUESTION 1 by **circling** the letter (A–D) in the answer grid at the end of that section.
3. Show **ALL** calculations clearly.
4. Show all units where applicable.
5. Number the answers correctly according to the numbering system used in this question paper.
6. A non-programmable calculator may be used, unless stated otherwise.
7. Write neatly and legibly.

QUESTION 1 [10 MARKS]

Four options are given as possible answers to the following questions. Choose the correct answer and circle the letter (A–D) in the grid at the end of this section. If you want to change your choice, put a cross through the wrong letter and circle your new choice.

1.1 A phone is advertised at R229 per month for 24 months with no deposit. The total paid is ... (1)

A) R229
B) R5 496
C) R2 748
D) R5 267

1.2 That phone's cash price is R4 779,13. The total INTEREST paid over the 24 months is ... (1)

A) R4 779,13
B) R5 496
C) R229
D) R716,87

1.3 A fridge costs R8 000 cash. On hire purchase there is a 10% deposit and 24 payments of R400. The total paid is ... (1)

A) R9 600
B) R10 000
C) R8 800
D) R10 400

1.4 The rate is £1 : R22,32. A phone costing £250 costs ... in rand. (1)

A) R5 000
B) R5 580
C) R11,20
D) R272,32

1.5 The rate is $1 : R18,50. R1 500 converts to ... (1)

A) $1 518,50
B) $18,50
C) $81,08
D) $27 750

1.6 A town of 50 000 people grows at 3% per year, compounded. After 4 years the population is ... (1)

A) 56 000 **B)** 51 500

C) 58 493 **D)** 56 275

1.7 Hire purchase always costs more than paying cash because ... (1)

A) interest is charged on the amount still owed **B)** the deposit is an extra charge

C) VAT is added twice **D)** the instalments include delivery

1.8 The rand weakens from R18,00 to R19,50 to the US dollar. For a South African buyer this means ... (1)

A) imported goods become cheaper **B)** imported goods become more expensive

C) overseas travel becomes cheaper **D)** the petrol price is unaffected

1.9 An item costs R2 400 excluding VAT at 15%. Including VAT it costs ... (1)

A) R2 760 **B)** R2 040

C) R360 **D)** R2 415

1.10 A laptop is advertised at R450 per month for 36 months with a R2 000 deposit. The total cost is ... (1)

A) R20 200 **B)** R18 200

C) R16 200 **D)** R2 450

ANSWER GRID — CIRCLE YOUR ANSWERS FOR QUESTION 1

1.1	A	B	C	D
1.2	A	B	C	D
1.3	A	B	C	D
1.4	A	B	C	D
1.5	A	B	C	D
1.6	A	B	C	D
1.7	A	B	C	D
1.8	A	B	C	D
1.9	A	B	C	D
1.10	A	B	C	D

QUESTION 2 [13 MARKS]

Jamie buys a small business for R250 000. It earns R1 000 in the first month and R3 000 in every month after that. The money is deposited into an account and no interest is added.

2.1 Write down the balance in the account at the end of the 3rd month and the 4th month. (2)

2.2 Determine an expression, in terms of n, for the balance after n months. **(3)**

2.3 Determine how long it takes Jamie to break even — that is, to get his R250 000 back. Give your answer in YEARS. **(4)**

2.4 Determine how many months it takes Jamie to make a PROFIT of R30 000. Give your answer in years and months. **(4)**

QUESTION 3 [14 MARKS]

A fridge has a cash price of R12 000. On hire purchase a 10% deposit is paid and the balance is repaid over 3 years at 15% p.a. simple interest.

3.1 Calculate the deposit and the balance owing. **(3)**

3.2 Calculate the monthly instalment. **(4)**

3.3 The exchange rate is $\$1 = \text{R}18{,}50$. Convert $\$240$ to rands, and $\text{R}5\ 000$ to dollars. **(4)**

3.4 A town's population of $1\ 200\ 000$ grows at $2{,}3\%$ per year. Calculate the population after 5 years, to the nearest whole number. **(3)**

TOTAL: 37 marks

This question paper consists of 3 questions.

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