Simple Interest

Test bank · Multiple-choice questions

COURSE TEACHING ASSISTANTS

Kamal Ezzo kamal.ezzo@must.edu.eg

Maryam Gebraeil maryam.gebraeil@must.edu.eg

Tasneem Abdelraouf tasneem.abdelraouf@must.edu.eg

Sarah Hamzah sarah.hamza@must.edu.eg

Rules

Interest	$I = P \times r \times t$
Time	months ÷ 12, weeks ÷ 52, days ÷ 360 (commercial) or ÷ 365 (exact; 366 in a leap year)
Annual rate	monthly × 12, every 2 months × 6, quarterly × 4, semi-annual × 2
Days	first month: days left after the start date; last month: the day it ends
Difference	$I_c - I_e = I_c \div 73$

Choose one answer for each question. The answer and the working are under each question.

Q1 Hany borrowed 10,000 L.E. for 3 years at 6% annually. What is the simple interest?

A) 1,200 L.E. **B)** 1,500 L.E. **C)** 1,800 L.E. **D)** 2,000 L.E.

> **Answer: C) 1,800 L.E.**
> $I = 10000 \times 0.06 \times 3 = 1800$

Q2 Mona deposited 8,000 L.E. for 2.5 years at 8% annually. What is the interest?

A) 1,200 L.E. **B)** 1,400 L.E. **C)** 1,600 L.E. **D)** 1,800 L.E.

> **Answer: C) 1,600 L.E.**
> $I = 8000 \times 0.08 \times 2.5 = 1600$

Q3 Ahmed borrowed 15,000 L.E. for 10 months at 9% annually. What is the simple interest?

A) 1,000 L.E. **B)** 1,125 L.E. **C)** 1,250 L.E. **D)** 1,350 L.E.

> **Answer: B) 1,125 L.E.**
> $I = 15000 \times 0.09 \times 10/12 = 1125$

Q4 Sara deposited 6,000 L.E. for 39 weeks at 12% annually. What is the interest?

A) 520 L.E. **B)** 540 L.E. **C)** 560 L.E. **D)** 580 L.E.

Answer: B) 540 L.E.

I = 6000 × 0.12 × 39/52 = 540

Q5 Ali invested 20,000 L.E. at a monthly rate of 0.5% for 2 years. What is the simple interest?

A) 2,000 L.E. **B)** 2,400 L.E. **C)** 2,800 L.E. **D)** 3,000 L.E.

Answer: B) 2,400 L.E.

r = 0.5% × 12 = 6%, I = 20000 × 0.06 × 2 = 2400

Q6 Nour invested 12,000 L.E. at a quarterly rate of 4% for 18 months. What is the interest?

A) 2,400 L.E. **B)** 2,880 L.E. **C)** 3,000 L.E. **D)** 3,200 L.E.

Answer: B) 2,880 L.E.

r = 4% × 4 = 16%, I = 12000 × 0.16 × 18/12 = 2880

Q7 Hany deposited 25,000 L.E. at a semi-annual rate of 3% for 2 years. What is the simple interest?

A) 2,500 L.E. **B)** 3,000 L.E. **C)** 3,500 L.E. **D)** 4,000 L.E.

Answer: B) 3,000 L.E.

r = 3% × 2 = 6%, I = 25000 × 0.06 × 2 = 3000

Q8 Mariam invested 10,000 L.E. at a monthly rate of 1% for 1.5 years. What is the interest?

A) 1,500 L.E. **B)** 1,800 L.E. **C)** 2,000 L.E. **D)** 2,400 L.E.

Answer: B) 1,800 L.E.

r = 1% × 12 = 12%, I = 10000 × 0.12 × 1.5 = 1800

Q9 Khaled invested 30,000 L.E. at a rate of 2% every two months for 15 months. What is the simple interest?

A) 3,000 L.E. **B)** 3,600 L.E. **C)** 4,000 L.E. **D)** 4,500 L.E.

Answer: D) 4,500 L.E.

r = 2% × 6 = 12%, I = 30000 × 0.12 × 15/12 = 4500

Q10 If the simple interest on a certain amount for 8 months at 6% annually is 240 L.E., what is the principal?

A) 4,000 L.E. **B)** 5,000 L.E. **C)** 6,000 L.E. **D)** 7,000 L.E.

> **Answer: C) 6,000 L.E.**
> P = 240 / (0.06 × 8/12) = 240 / 0.04 = 6000

Q11 A person deposited 18,000 L.E. and received 2,700 L.E. as simple interest after 2.5 years. What is the annual interest rate?

A) 5% **B)** 6% **C)** 7% **D)** 8%

> **Answer: B) 6%**
> r = 2700 / (18000 × 2.5) = 2700 / 45000 = 0.06 = 6%

Q12 Find the time required for 12,000 L.E. to earn 1,800 L.E. simple interest at 5% annually.

A) 2 years **B)** 2.5 years **C)** 3 years **D)** 3.5 years

> **Answer: C) 3 years**
> t = 1800 / (12000 × 0.05) = 1800 / 600 = 3 years

Q13 Hany deposited 20,000 L.E. in a bank at 4% semi-annually. What is the interest due after 7 months?

A) 800 L.E. **B)** 900 L.E. **C)** 933.33 L.E. **D)** 1,000 L.E.

> **Answer: C) 933.33 L.E.**
> r = 4% × 2 = 8%, I = 20000 × 0.08 × 7/12 = 933.33

Q14 If the simple interest on a certain amount for 10 months at 9% annually is 450 L.E., what is the principal?

A) 5,000 L.E. **B)** 5,500 L.E. **C)** 6,000 L.E. **D)** 6,500 L.E.

> **Answer: C) 6,000 L.E.**
> P = 450 / (0.09 × 10/12) = 450 / 0.075 = 6000

Q15 Calculate the deposit period for an amount deposited on April 4, 2015, and withdrawn on August 12, 2015.

A) 126 days **B)** 128 days **C)** 130 days **D)** 132 days

> **Answer: C) 130 days**
> April: 26 + May: 31 + June: 30 + July: 31 + August: 12 = 130

Q16 Calculate the borrowing period for a loan taken on March 7, 2015, and repaid on September 15, 2015.

A) 188 days **B)** 190 days **C)** 192 days **D)** 194 days

> **Answer: C) 192 days**
> March: 24 + April: 30 + May: 31 + June: 30 + July: 31 + August: 31 + September: 15 = 192

Q17 A person deposited an amount on January 10, 2012, and withdrew it on May 20, 2012. Find the deposit period.

A) 128 days **B)** 129 days **C)** 130 days **D)** 131 days

> **Answer: D) 131 days**
> January: 21 + February: 29 + March: 31 + April: 30 + May: 20 = 131

Q18 Find the period of investment from February 5, 2013, to June 18, 2013.

A) 131 days **B)** 132 days **C)** 133 days **D)** 134 days

> **Answer: C) 133 days**
> February: 23 + March: 31 + April: 30 + May: 31 + June: 18 = 133

Q19 Calculate the loan period from October 12, 2014, to January 8, 2015.

A) 86 days **B)** 87 days **C)** 88 days **D)** 89 days

> **Answer: C) 88 days**
> October: 19 + November: 30 + December: 31 + January: 8 = 88

Q20 Hany deposited 12,000 pounds for 90 days at 10% annually. What is the commercial interest?

A) 280 L.E. **B)** 290 L.E. **C)** 300 L.E. **D)** 310 L.E.

> **Answer: C) 300 L.E.**
> Ic = 12000 × 0.10 × 90/360 = 300

Q21 Hany deposited 12,000 pounds for 90 days at 10% annually in 2013. What is the exact interest?

A) 290.89 L.E. **B)** 295.89 L.E. **C)** 300.89 L.E. **D)** 305.89 L.E.

> **Answer: B) 295.89 L.E.**
> Ie = 12000 × 0.10 × 90/365 = 295.89

Q22 Hany deposited 12,000 pounds for 90 days at 10% annually in 2012. What is the exact interest?

A) 293.08 L.E. **B)** 294.08 L.E. **C)** 295.08 L.E. **D)** 296.08 L.E.

> **Answer: C) 295.08 L.E.**
> Ie = 12000 × 0.10 × 90/366 = 295.08

Q23 A person deposited 8,000 pounds on March 1, 2014, at 9% annually. What is the exact interest on June 1, 2014?

A) 179.48 L.E. **B)** 180.48 L.E. **C)** 181.48 L.E. **D)** 182.48 L.E.

> **Answer: C) 181.48 L.E.**
> Days = 92, Ie = 8000 × 0.09 × 92/365 = 181.48

Q24 Hany deposited 15,000 pounds for 120 days at 8% annually. What is the commercial interest?

A) 380 L.E. **B)** 390 L.E. **C)** 400 L.E. **D)** 410 L.E.

> **Answer: C) 400 L.E.**
> Ic = 15000 × 0.08 × 120/360 = 400

Q25 Hany deposited 15,000 pounds for 120 days at 8% annually in a leap year. What is the exact interest?

A) 391.44 L.E. **B)** 392.44 L.E. **C)** 393.44 L.E. **D)** 394.44 L.E.

> **Answer: C) 393.44 L.E.**
> Ie = 15000 × 0.08 × 120/366 = 393.44

Q26 Find the exact interest on 20,000 L.E. at 6% annually from May 5, 2015, to August 5, 2015.

A) 300.47 L.E. **B)** 301.47 L.E. **C)** 302.47 L.E. **D)** 303.47 L.E.

> **Answer: C) 302.47 L.E.**
> Days = 92, Ie = 20000 × 0.06 × 92/365 = 302.47

Q27 Calculate the commercial interest on 50,000 L.E. for 150 days at 7% annually.

A) 1,400 L.E. **B)** 1,450 L.E. **C)** 1,458.33 L.E. **D)** 1,500 L.E.

> **Answer: C) 1,458.33 L.E.**
> Ic = 50000 × 0.07 × 150/360 = 1458.33

Q28 A person invested 2,000 pounds for 60 days, and the difference between commercial and exact interests was 0.60 pounds. What is the commercial interest?

A) 42.8 L.E. **B)** 43.2 L.E. **C)** 43.8 L.E. **D)** 44.2 L.E.

> **Answer: C) 43.8 L.E.**
> Ic = 73 × 0.60 = 43.8

Q29 If the difference between commercial and exact interests is 1.5 L.E. for a certain amount invested for 90 days at 10% annually, what is the principal?

A) 4,000 L.E. **B)** 4,200 L.E. **C)** 4,380 L.E. **D)** 4,500 L.E.

> **Answer: C) 4,380 L.E.**
> Ic = 73 × 1.5 = 109.5, P = 109.5 / (0.10 × 90/360) = 4380