Unit 02: Temporal Optimization

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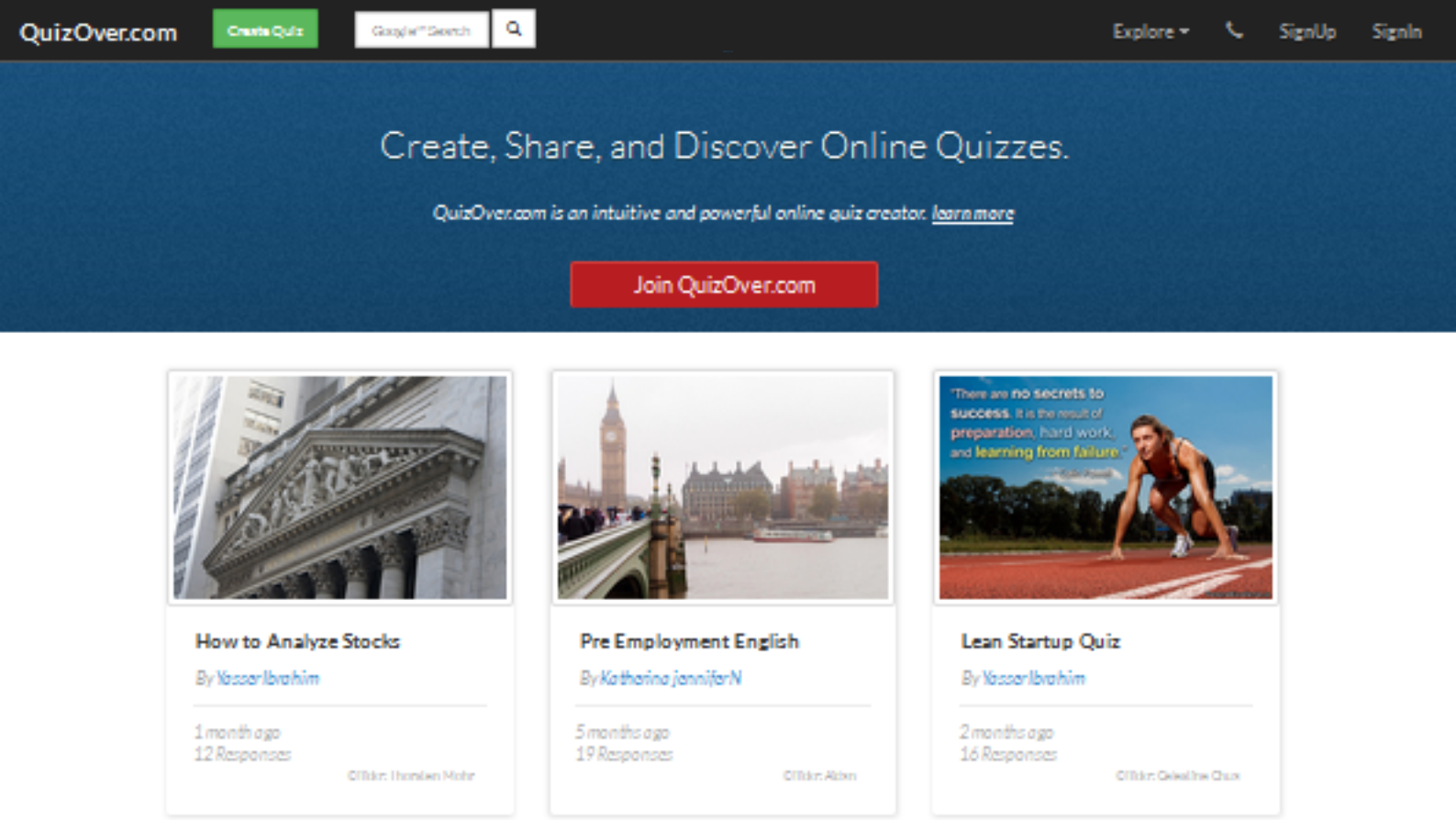

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4. Chapter: Unit 02: Temporal Optimization

1. Unit 02: Temporal Optimization Questions

4.1.1. Suppose that the relationship between economic growth (y) and popul...

Author: Tony Pizur

Suppose that the relationship between economic growth (y) and population (x) is given by the following formula: $y = -0.25x^2+2x$. What is the maximum sustainable yield?

Please choose only one answer:

- 0
- 4
- 8
- None of the above

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4.1.2. Can the present value of an annuity exceed the sum of its payments?

Author: Tony Pizur

Can the present value of an annuity exceed the sum of its payments?

Please choose only one answer:

- No.
- Yes, when the payer is expected to default.
- Yes, when interest rates are negative.
- Yes, when total return is negative.

Check the answer of this question online at QuizOver.com:
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4.1.3. Suppose that the relationship between economic growth (y) and popul...

Author: Tony Pizur

Suppose that the relationship between economic growth (y) and population (x) is given by the following formula: $y = -0.25x^2+2x$. What is the maximum possible size of the entire population?

Please choose only one answer:

- 0
- 4
- 8
- 16

4.1.4. Suppose that the relationship between economic growth (y) and popul...

Author: Tony Pizur

Suppose that the relationship between economic growth (y) and population (x) is given by the following formula: $y = -0.5x^2+3x$. What is the maximum sustainable yield?

Please choose only one answer:

- 0
- 3
- 4.5
- 9

4.1.5. Suppose that the relationship between economic growth (y) and popul...

Author: Tony Pizur

Suppose that the relationship between economic growth (y) and population (x) is given by the following formula: $y = -0.5x^2+3x$. What is the required initial population to reach the maximum sustainable yield?

Please choose only one answer:

- 0
- 3
- 4.5
- 9

4.1.6. Suppose that the relationship between economic growth (y) and carbo...

Author: Tony Pizur

Suppose that the relationship between economic growth (y) and carbon dioxide levels (x) is given by the following formula: y = -x?-3x³-.5x²+2x+4. What is the maximum sustainable growth?

Please choose only one answer:

- 0
- 4
- 6
- 12

Check the answer of this question online at QuizOver.com:
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http://www.quizover.com/question/suppose-that-the-relationship-between-economic-tony-pizur-regi-2624566?pdf=3044

4.1.7. Suppose that the relationship between economic growth (y) and carbo...

Author: Tony Pizur

Suppose that the relationship between economic growth (y) and carbon dioxide levels (x) is given by the following formula: y = -x?-3x³-.5x²+2x+4. To achieve the maximum sustainable growth, what is the optimal choice for carbon dioxide levels?

Please choose only one answer:

- Remove two units of carbon dioxide from the environment.
- Keep it at zero, that is, be carbon neutral.
- Add between zero and one units of carbon dioxide to the environment.
- The answer cannot be determined from the information given.

4.1.8. You have a choice of two investments. Option #1 will pay you a $1,0...

Author: Tony Pizur

You have a choice of two investments. Option #1 will pay you a $1,000 annuity at the end of every year for 10 years. Option #2 pays $1,600 at the end of every year for seven years. What is the present value of Option #1 at a rate of 12 percent?

Please choose only one answer:

- $12,000
- $6,666
- $6,560
- $5,650

4.1.9. You have a choice of two investments. Option #1 will pay you a $1,0...

Author: Tony Pizur

You have a choice of two investments. Option #1 will pay you a $1,000 annuity at the end of every year for 10 years. Option #2 pays $1,600 at the end of every year for seven years. What is the present value of Option #2 at a rate of 2 percent?

Please choose only one answer:

- $11,200
- $10,355
- $9,998
- $2,012

4.1.10. You have a choice of two investments. Option #1 will pay you a $1,0...

Author: Tony Pizur

You have a choice of two investments. Option #1 will pay you a $1,000 annuity at the end of every year for 10 years at 6 percent. Option #2 pays $1,600 at the end of every year for seven years at a rate of 10 percent. Which annuity has a higher present value?

Please choose only one answer:

- Option #1 by $430.
- Option #2 by $430.
- Option #2 by $340.
- Option #1 by $340.