

CARD #1

Sam is saving money to pay for a down payment on a car. Sam invests \$2,142 dollars into an account that has a 3.2% interest compounded semi-annually. How much money will Sam have in 5 years?

- A \$2,510.48 go to card #7
- B \$2,513.66 go to card #5
- C \$2,507.37 go to card #6
- D \$2,511.86 go to card #8

CARD #2

Sam is saving money to pay for a down payment on a car. Sam invests \$1,224 dollars into an account that has a 2.5% interest compounded semi-annually. How much money will Sam have in 4 years?

- A \$1,352.73 go to card #7
- B \$1,354.77 go to card #5
- C \$1,351.07 go to card #8
- D \$1,351.89 go to card #6

CARD #3

Sam is saving money to pay for a down payment on a car. Sam invests \$3,129 dollars into an account that has a 2.8% interest compounded semi-annually. How much money will Sam have in 6 years?

- A \$3,692.87 go to card #5
- B \$3,701.41 go to card #6
- C \$3,697.10 go to card #8
- D \$3,699.15 go to card #7

CARD #4

Sam is saving money to pay for a down payment on a car. Sam invests \$3,014 dollars into an account that has a 3.7% interest compounded semi-annually. How much money will Sam have in 5 years?

- A \$3,614.41 go to card #7
- B \$3,626.50 go to card #8
- C \$3,618.11 go to card #6
- D \$3,620.38 go to card #5

CARD #5

The current in a certain electrical circuit is modeled by the formula $I = 5^{-t}$, where t is the time in seconds. Find t for a current of 0.3 amperes.

- A 0.748 seconds go to card #10
- B 0.186 seconds go to card #9
- C -0.748 seconds go to card #12
- D -0.186 seconds go to card #11

CARD #6

The current in a certain electrical circuit is modeled by the formula $I = 3^{-t}$, where t is the time in seconds. Find t for a current of 0.3 amperes.

- A -0.273 seconds go to card #10
- B 0.273 seconds go to card #9
- C -1.096 seconds go to card #11
- D 1.096 seconds go to card #12

CARD #7

The current in a certain electrical circuit is modeled by the formula $I = 2^{-t}$, where t is the time in seconds. Find t for a current of 0.3 amperes.

- A 0.433 seconds go to card #10
- B 1.737 seconds go to card #9
- C -1.737 seconds go to card #12
- D -0.433 seconds go to card #11

CARD #8

The current in a certain electrical circuit is modeled by the formula $I = 4^{-t}$, where t is the time in seconds. Find t for a current of 0.3 amperes.

- A -0.868 seconds go to card #9
- B 0.216 seconds go to card #10
- C 0.868 seconds go to card #11
- D -0.216 seconds go to card #12

CARD #9

The crab population for the Chesapeake Bay region in Maryland is increasing at an estimated rate of 12.8% per year. If there are an estimated 372 million crabs in the Bay currently, how long will it take to reach a goal of 650 million crabs?

- A 4.633 years go to card #15
- B 0.271 years go to card #16
- C 12.945 years go to card #14
- D 1.072 years go to card #13

CARD #10

The crab population for the Chesapeake Bay region in Maryland is increasing at an estimated rate of 11.8% per year. If there are an estimated 327 million crabs in the Bay currently, how long will it take to reach a goal of 560 million crabs?

- A 15.353 years go to card #13
- B 4.823 years go to card #16
- C 1.072 years go to card #15
- D 0.252 years go to card #14

CARD #11

The crab population for the Chesapeake Bay region in Maryland is increasing at an estimated rate of 14.8% per year. If there are an estimated 337 million crabs in the Bay currently, how long will it take to reach a goal of 650 million crabs?

- A 0.344 years go to card #16
- B 1.087 years go to card #13
- C 13.975 years go to card #15
- D 4.759 years go to card #14

CARD #12

The crab population for the Chesapeake Bay region in Maryland is increasing at an estimated rate of 13.8% per year. If there are an estimated 327 million crabs in the Bay currently, how long will it take to reach a goal of 580 million crabs?

- A 0.289 years go to card #14
- B 13.721 years go to card #16
- C 4.433 years go to card #13
- D 1.075 years go to card #15

CARD #13

At a constant temperature, the atmospheric pressure, p , in pascals, is given by the formula

$p = 101.3e^{-0.001h}$, where h is the altitude in meters. Find the atmospheric pressure when the altitude is 21.3 meters.

- A 98.671 pascals go to card #20
- B 99.165 pascals go to card #19
- C 99.036 pascals go to card #18
- D 98.395 pascals go to card #17

CARD #14

At a constant temperature, the atmospheric pressure, p , in pascals, is given by the formula

$p = 101.3e^{-0.001h}$, where h is the altitude in meters. Find the atmospheric pressure when the altitude is 29.1 meters.

- A 99.036 pascals go to card #18
- B 98.671 pascals go to card #20
- C 99.165 pascals go to card #19
- D 98.395 pascals go to card #17

CARD #15

At a constant temperature, the atmospheric pressure, p , in pascals, is given by the formula

$p = 101.3e^{-0.001h}$, where h is the altitude in meters. Find the atmospheric pressure when the altitude is 26.3 meters.

- A 98.671 pascals go to card #20
- B 99.036 pascals go to card #18
- C 99.165 pascals go to card #19
- D 98.395 pascals go to card #17

CARD #16

At a constant temperature, the atmospheric pressure, p , in pascals, is given by the formula

$p = 101.3e^{-0.001h}$, where h is the altitude in meters. Find the atmospheric pressure when the altitude is 22.6 meters.

- A 98.395 pascals go to card #17
- B 99.165 pascals go to card #19
- C 99.036 pascals go to card #18
- D 98.671 pascals go to card #20

CARD #17

The optical intensity of an object, called I , is determined by the formula $\log(I) = \log(4.6) - d$, where d is the distance in inches. Find the optical intensity for a distance of 4 inches.

- A 4.6×10^{-4} go to card #21
- B 0.022 go to card #24
- C 0.036 go to card #22
- D 3.9×10^{-4} go to card #23

CARD #18

The optical intensity of an object, called I , is determined by the formula $\log(I) = \log(5.1) - d$, where d is the distance in inches. Find the optical intensity for a distance of 4 inches.

- A 0.037 go to card #21
- B 0.064 go to card #22
- C 5.1×10^{-4} go to card #24
- D 3.9×10^{-4} go to card #23

CARD #19

The optical intensity of an object, called I , is determined by the formula $\log(I) = \log(3.5) - d$, where d is the distance in inches. Find the optical intensity for a distance of 4 inches.

- A 2.6×10^{-4} go to card #21
- B 0.032 go to card #24
- C 0.483 go to card #22
- D 3.5×10^{-4} go to card #23

CARD #20

The optical intensity of an object, called I , is determined by the formula $\log(I) = \log(2.3) - d$, where d is the distance in inches. Find the optical intensity for a distance of 4 inches.

- A 0.026 go to card #24
- B 2.3×10^{-4} go to card #22
- C 1.6×10^{-4} go to card #21
- D 0.091 go to card #23

CARD #21

The wind speed in miles per hour near the center of a tornado is modeled by $s = 93 \log d + 67$, where d is distance in miles. On March 18, 1925, a tornado whose wind speed was about 280 miles per hour struck the Midwest. How far did the tornado travel?

- A 958.068 miles go to card #27
- B 2.290 miles go to card #28
- C 294.586 miles go to card #25
- D 195.129 miles go to card #26

CARD #22

The wind speed in miles per hour near the center of a tornado is modeled by $s = 93 \log d + 65$, where d is distance in miles. On March 18, 1925, a tornado whose wind speed was about 280 miles per hour struck the Midwest. How far did the tornado travel?

- A 205.035 miles go to card #25
- B 960.068 miles go to card #26
- C 2.312 miles go to card #27
- D 292.586 miles go to card #28

CARD #23

The wind speed in miles per hour near the center of a tornado is modeled by $s = 93 \log d + 62$, where d is distance in miles. On March 18, 1925, a tornado whose wind speed was about 280 miles per hour struck the Midwest. How far did the tornado travel?

- A 220.844 miles go to card #28
- B 289.586 miles go to card #25
- C 963.068 miles go to card #27
- D 2.344 miles go to card #26

CARD #24

The wind speed in miles per hour near the center of a tornado is modeled by $s = 93 \log d + 63$, where d is distance in miles. On March 18, 1925, a tornado whose wind speed was about 280 miles per hour struck the Midwest. How far did the tornado travel?

- A 2.333 miles go to card #25
- B 962.068 miles go to card #26
- C 215.443 miles go to card #27
- D 290.586 miles go to card #28

CARD #25

How long will it take for \$4000 to triple if it is invested at 5.4% interest compounded quarterly?

- A 55.930 years go to card #29
- B 20.482 years go to card #31
- C 55.930 months go to card #32
- D 20.482 months go to card #30

CARD #26

How long will it take for \$4000 to triple if it is invested at 3.9% interest compounded quarterly?

- A 28.307 years go to card #32
- B 28.307 months go to card #29
- C 77.297 years go to card #31
- D 77.297 months go to card #30

CARD #27

How long will it take for \$4000 to triple if it is invested at 6.1% interest compounded quarterly?

- A 18.147 months go to card #30
- B 49.554 months go to card #31
- C 49.554 years go to card #32
- D 18.147 years go to card #29

CARD #28

How long will it take for \$4000 to triple if it is invested at 4.8% interest compounded quarterly?

- A 62.874 months go to card #32
- B 62.874 years go to card #31
- C 23.025 years go to card #30
- D 23.025 months go to card #29

CARD #29

The value of an iPod decreases by 41% every year. If the iPod originally cost \$250, how much was the iPod worth after 9 months?

- A \$168.30 go to card #4
- B \$2.17 go to card #3
- C \$128.09 go to card #2
- D \$0.08 go to card #1

CARD #30

The value of an iPod decreases by 44% every year. If the iPod originally cost \$250, how much was the iPod worth after 9 months?

- A \$135.06 go to card #3
- B \$0.15 go to card #1
- C \$1.35 go to card #4
- D \$161.84 go to card #2

CARD #31

The value of an iPod decreases by 48% every year. If the iPod originally cost \$250, how much was the iPod worth after 9 months?

- A \$144.17 go to card #3
- B \$153.09 go to card #1
- C \$0.69 go to card #4
- D \$0.34 go to card #2

CARD #32

The value of an iPod decreases by 49% every year. If the iPod originally cost \$250, how much was the iPod worth after 9 months?

- A \$0.58 go to card #2
- B \$146.42 go to card #1
- C \$150.88 go to card #3
- D \$0.41 go to card #4