Level 1

Q1

$y = 20(1 - 25)^x$

B

A $y = 20(1 - 0.25)^x$

Your school suffered from an outbreak of the flu on Tuesday. Initially, 20 students came to the school while infected. However, the number of infected students increased 25% per hour. Which function models Tuesday's outbreak?

C $y = 20(1 + 0.25)^x$

D

$y = 20(1 + 25)^x$

Level 1

Q2

$y = 50000(1.2)^x$

B

A

An internet survivor game had 50,000 participants; however, the game kicks off 20% of the participants each day. Which function models this game?

C

$y = 50000(0.8)^x$

$y = 50000(120)^x$

D

$y = 50000(80)^x$

Level 1

Q3

$y = 35000(0.18)^x$

B

$y = 35000(1.18)^x$ A

A brand new car costs $35,000. The value of the car decreases by 18% annually. Which function models the yearly value of the car since its purchase?

C $y = 35000(-0.18)^x$

D

$y = 35000(0.82)^x$

Level 1

Q4

B

$y = 75000(1.024)^x$

A

$y = 75000(0.76)^x$

The population of Zoe's hometown was 75,000 people last year. The population is growing at a rate of 2.4% each year. Which function models the grow of this city?

C

$y = 75000(0.976)^x$

D

$y = 75000(1.24)^x$

Level 1