1

How many three-digit integers can be divided by 2 to produce a new integer with the same tens digit and units digit as the original integer?

A. None
B. One
C. Two
D. Three
E. Four

2

The average age of a group of 5 members is 20 years. Two years later, a new member joins the group. The average age of the group becomes 22 years. What is the age of the new member ?

A. 20 years
B. 21 years
C. 22 years
D. 23 years
E. 24 years

3

Jim is twice as old as Stephanie, who, four years ago, was three times as old as Kate. If, five years from now, the sum of their ages will be 51, how old is Stephanie ?

A. 6
B. 10
C. 14
D. 20
E. 24

4

Charges made by two companies for the same A/C

	Company X	Company Y
Price	$575	$530
Surcharge as a Percent of Price	4%	3%
Installation Charge	$82.50	$93.00

The table above shows the various charges made by two companies for the same air conditioner. What is the total amount that can be saved on the purchase and installation of the air conditioner by dealing with the company that offers the lower total charge?

A. $41.60
B. $45.00
C. $50.75
D. $55.75
E. $61.25

5

Jane started baby-sitting when she was 18 years old. Whenever she baby-sat for a child, that child was no more than half her age at the time. Jane is currently 32 years old, and she stopped baby-sitting 10 years ago. What is the current age of the oldest person for whom Jane could have baby-sat?

A. 20
B. 21
C. 22
D. 23
E. 24

6

$$\frac{0.99999999}{1.0001} - \frac{0.99999991}{1.0003} =$$

(A) 10^(-8)
(B) 3*10^(-8)
(C) 3*10^(-4)
(D) 2*10^(-4)
(E) 10^(-4)

7

The value of (2^(-14) + 2^(-15) + 2^(-16) + 2^(-17))/5 is how many times the value of 2^(-17)?

A. 3/2
B. 5/2
C. 3
D. 4
E. 5

8

M is the sum of the reciprocals of the consecutive integers from 201 to 300, inclusive. Which of the following is true?

(A) 1/3 < M < 1/2
(B) 1/5 < M < 1/3
(C) 1/7 < M < 1/5
(D) 1/9 < M < 1/7
(E) 1/12 < M < 1/9

9

The value of (10^8-10^2)/(10^7-10^3) is closest to which of the following?

A. 1
B. 10
C. 10^2
D. 10^3
E. 10^4

10

The rear wheels of a car crossed a certain line 0.5 second after the front wheels crossed the same line. If the centers of the front and rear wheels are 20 feet apart and the car traveled in a straight line at a constant speed, which of the following gives the speed of the car in miles per hour? (5280 feet = 1 mile)

A. $\left(\frac{20}{5280}\right)\left(\frac{60^2}{0.5}\right)$

B. $\left(\frac{20}{5280}\right)\left(\frac{60}{0.5}\right)$

C. $\left(\frac{20}{5280}\right)\left(\frac{0.5}{60^2}\right)$

D. $\frac{(20)(5280)}{(60^2)(0.5)}$

E. $\frac{(20)(5280)}{(60)(0.5)}$