11- 8756 x 99999 =?

- **A.**796491244
- **B.**875591244
- **C.**815491244
- **D.**88324284
- **E.**None of these

Answer & Explanation

Answer - **B** (875591244)

Explanation - 8756 x 99999 = 8756 x (100000 - 1) = (8756 x 100000) - (8756 x 1)

= (875600000 - 8756) = 875591244

12- The value of $(11^2 + 12^2 + 13^2 + 14^2 + ... + 20^2)$ is:

- **A.**385
- **B.**2485
- **C.**2870
- **D.**3255
- **E.**None of these

Answer & Explanation

Answer - **B** (2485)

Explanation - $11^2 + 12^2 + 13^2 + ... + 20^2$

$= (1^2 + 2^2 + 3^2 + ... + 20^2) - (1^2 + 2^2 + 3^2 + ... + 10^2)$

$$= \frac{20\,(20 + 1)\,(40 + 1)}{6} - \frac{10\,(10 + 1)\,(20 + 1)}{6} = 2485.$$

13- 469157 x 9999 = ?

- **A.**4586970843
- **B.**4686970743
- **C.**4691100843
- **D.**484649125
- **E.**None of these

Answer & Explanation

Answer - **C** (4691100843)

Explanation - 469157 x 9999 = 469157 x (10000 -1) = (469157 x 10000) - (469157 x 1)

= (4691570000 - 469157) = 4691100843

14- A number when divided by 3 leaves a remainder 1. When the quotient is divided by 2, it leaves a remainder 1. What will be the remainder when the number is divided by 6?

- **A.**2
- **B.**3
- **C.**4
- **D.**5
- **E.**None of these

Answer & Explanation

Answer - **C** (4)

Explanation - Let n = 3*q* + 1 and let *q* = 2*p* + 1. Then, *n* = 3 (2*p* + 1) + 1 = 6*p* + 4

The number when divided by 6, we get remainder = 4

15- 935421 x 625 = ?

- **A.**575648125
- **B.**584638125
- **C.**584649125
- **D.**575628125
- **E.**None of these

Answer & Explanation

Answer - **B** (584638125)

Explanation - 935421 x 625 = 935421 x 5^4

= 9354210000 / 2^4

= 9354210000 / 16

= 584638125

16- The sum of the digits of a 3-digit number is subtracted from the number. The resulting number is:

- **A.**Divisible by 6
- **B.**Divisible by 9
- **C.**Divisible by both 6 and 9
- **D.**Divisible neither by 6 or 9
- **E.**None of these

Answer & Explanation

Answer - **B** (Divisible by 9)

Explanation - Let the 3-digit number be xyz. Then,

$(100x + 10y + z) - (x + y + z) = 99x + 9y = 9(11x + y)$, Which is divisible by 9

17- Which of the following is always odd?

- **A.**Sum of two odd numbers
- **B.**Product of two odd numbers
- **C.**Difference of two odd numbers
- **D.**Sum of two even numbers
- **E.**None of these

Answer & Explanation

Answer - **B** (Product of two odd numbers)

Explanation - Product of two odd numbers is always odd.

18- The digit in unit's place of the product 81 x 82 x … x 89 is:

- **A.**0
- **B.**2
- **C.**6
- **D.**8
- **E.**None of these

Answer & Explanation

Answer - **A** (0)

Explanation - Required digit = Unit digit in (1 x 2 x 3 x 4 x 5 x 6 x 7 x 8 x 9) = 0

19- Find the number which is nearest to 457 and is exactly divisible by 11?

- **A.**450
- **B.**451
- **C.**460
- **D.**462
- **E.**None of these

Answer & Explanation

Answer - **D** (462)

Explanation - On dividing 457 by 11, remainder is 6.

Required number is either 451 or 462. Nearest to 456 is 462

20- In doing a division of a question with zero remainder, a candidate took 12 as divisor instead of 21. The quotient obtained by him was 35. The correct quotient is:

- **A.**0
- **B.**12
- **C.**13
- **D.**20
- **E.**None of these

Answer & Explanation

Answer - **D** (20)

Explanation - Dividend = (12 x 35) = 420. Now, dividend = 420 and divisor = 21.

Correct quotient = 420/21 = 20