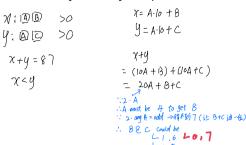


算术(上)-课后练习册

1. Integer x and y which have the same tens digits. The sum of x and y is 87, and x < y (x and y are positive

integers). How many distinct pairs of x and y satisfy the above rule?





2. In a store, price of small-sized coffee beans is \$k per bag, while price of larger coffee beans is \$\times m per bag. If someone buys four bags of coffee beans in the store at a price of \$30 in total, then k and m could be?

Indicate all such possible combinations.

A
$$k=7$$
 and $m=8$

B $k=5$ and $m=10$
 $k=5$ and $m=15$
 $k=8$ and $m=20$
 $k=10$ and $m=20$

The providence of $k=10$ and $k=10$ a

3. At most how many integers less than 25 could be the sum of the positive multiple of 4 and the positive

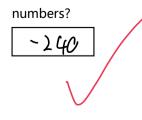
 $\chi < 25$

multiple of 5? A. 7

B. 8

$$\begin{cases}
9, 14, 19, 24 \\
13, 18, 23 \\
17, 22 \\
21
\end{cases}$$

4. When selecting four different integers from -5 to 4, inclusive, what is the least possible product of these four





5. If the sum of 11 consecutive integers is 22, then what's the least of the list of numbers?

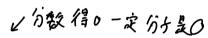
B. -5
$$\frac{11 \cdot (-5 + 5)}{2} = \frac{11}{2}$$
 $\chi \cdot \cdot \cdot y$
C. -3 $\frac{11 \cdot (-3 + 7)}{2} = 22$ $\frac{11}{2}$ Consecutive

6. The sum of n consecutive integers is 30

Quantity A: n

Quantity B: 4

- A. Quantity A is greater.
- B. Quantity B is greater.
- C. The two quantities are equal.
- (D) The relationship cannot be determined from the information given.
- 7. The average of n consecutive integers is 0



Quantity A: The sum of the greatest and least value of the n consecutive integers

Quantity B: The sum of all the n consecutive integers

- A. Quantity A is greater.
- B. Quantity B is greater.
- (C.) the two quantities are equal.
- D. The relationship cannot be determined from the information given.
- 8. For positive integers X and Y, whose product is 24, which of following statements **MUST** be true?

Indicate all such statements.

$$x \cdot g = 24$$

- B If one is odd, the other one must be even \checkmark 3.8°
- C. (12/y) is an integer χ



9. $y=4x^2+5x+7$ where y is an odd, which of the following is true about x?

A. x is odd

B.x is even

C. x is positive odd

D. x is positive even

E. Cannot be determined

if $x \circ dd$, x^2 is odd $\frac{1}{3}$ 4. odd= even $\frac{1}{3}$ odd $\frac{1}{3}$ $\frac{1}{3}$ = even

X even

 x^2 even $\frac{1}{3}$ $\frac{e^{ven}}{e^{old}} = odd$

10 Which of the following CANNOT be the value of k+k2 where k is a positive integer?

A multiple of 10 > even 3 Could be

- A number with the units digit as 5 🔷 💃
- A number such that the sum of units digit and tens digit is 9 Could be
- A number with tens digit as 4

11. m is a positive integer and 5m+9 is divisible by 4, which of the following must be an odd?

Indicate all such items.

 $(A.)^{odd} \quad odd \quad = odd$

B. 3-m = even OB even C. 3+m = odd + odd = even

D. m3+9 = eV en

 $\frac{5m+9keven}{4}$ = int

5m = odd

m = odd

15+9= 24

 $\frac{1}{2}$. X and y are both integers from 1 to 10, inclusive, and Set S consists of all the possible products of x*y.

Quantity A: The number of odd integers in Set S

Quantity B: The number of even integers in Set S

A. Quantity A is greater.

B; Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

[1-10] S[Possible]

P(xis odd) = c.5 even = 0.5 y is odd = c.5 even = 0.5 "only odd times odd give odd

0.5-0.5= D. 25



Quantity A: Among all the consecutive integers from 1 to 50, the difference between the sum of all even

numbers and the sum of all odd numbers

Quantity B: 25

- A. Quantity A is greater.
- B. Quantity B is greater.
- d. The two quantities are equal.
- D. The relationship cannot be determined from the information given.

14. Which of the following CANNOT be the sum of six consecutive odd integers?

$$Sum = na_i -$$

$$Sum = n\alpha_1 + \frac{n(n-1)}{2}cl$$

$$= 6\alpha_1 + \frac{6(s)}{2} 2$$

$$=6\alpha_1+30$$

E. 120

15. a and b are positive integers and
$$ab=24$$
 \rightarrow $2 \cdot 12$ Quantity A: a^2b

Quantity A: a2b

Quantity B: 192

- A. Quantity A is greater.
- B. Quantity B is greater.
- C. The two quantities are equal.
- $\widehat{\mathcal{O}}$ the relationship cannot be determined from the information given.



16. n, s and t are all positive integers

If n is a multiple of 7 and $n=s^2t$, which of the following must be a multiple of 49?

A. s

B. t

C. st²

D. s2t E. s2t2

$$n = 7 m$$

$$N = S^2 t$$

$$7m = S^2 t$$