Ngajar

Wednesday, 17 January 2024 12:13

a, b a·b = ganjil ⇒ (2x+1)(2y+1)

a, b ganjil 4xy + 2x + 2y + 1 } ganjil

genap

55. Jika x dan y bilangan bulat dan $x^2 - y^2$ ganjil, manakah di antara berikut ini yang harusganjil?

A. x
B. y
C. x^2
D. $x^2 + 1$
E. $x + y$ ← ganjil

3·5 = 15 } ganjil
7·11 = 77 }

a genap, b ganjil } genap
2x 2y+1 }

(2x)(2y+1) = 4xy + 2x

$x^2 - y^2 = 2k+1$

$(x+y)(x-y) = 2k+1$

ganjil ganjil

ganjil = 2k+1, k bulat

k = 1 3
2 5
−1 −1

genap

4a+1

a = 1, 2, 3

5 9 13

x+y = ganjil

x gen, y gan
x gan, y gen }

x−y = ganjil

ganjil

2p + 2a+1 = 4q+1

genap

(1) x genap, y ganjil
(2) x ganjil, y genap

1. Barisan 1, 2, y, ... merupakan barisan ~~geometri~~ aritmatika. Nilai 6-y adalah...

$\frac{2}{1} = \frac{y}{2}$

y = 4

6 − y = 6 − 4 = 2

2 − 1 = y − 2

1 + 2 = y

y = 3

6 − 3 = 3

12. Diketahui himpunan A={a,b,c,d,e,f,g,h}. Banyaknya himpunan bagian dari A yang memiliki 3 elemen adalah...

A. 8
B. 16
C. 24
D. 56
E. 336

(SM UNNES 2014)

a, b, c
a, b, d
a, b, e
⋮

8 elemen
pick 3

$_8C_3$

$\frac{8!}{5!\,3!}$

$\frac{8 \cdot 7 \cdot 6}{3!} = 56$

17. Suatu seri 1, 4, 9, 16, ...

A. 28
B. 24
C. 27
D. 26
E. 25

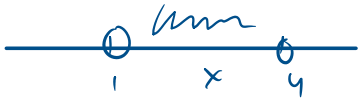
(TPS UTBK 2022)

$1^2 = 1$
$2^2 = 4$
$3^2 = 9$
$4^2 = 16$
$5^2 = 25$

$|2x - 5| < 3$

$|f(x)| < a$
$-a < f(x) < a$

$-3 < 2x - 5 < 3$
$2 < 2x < 8$
$1 < x < 4$



Jika f(x)=2x2-3x+1, g(x)=ax+b dan (gof)(x-2)=4x2-14x+11, maka...

$f(x) = 2x^2 - 3x + 1$ ↙ $x = x - 2$
$g(x) = ax + b$ ←
$(g \circ f)(x-2) = 4x^2 - 14x + 11$

$g(f(x-2)) = g(2(x-2)^2 - 3(x-2) + 1)$
$= g(2x^2 - 8x + 8 - 3x + 6 + 1)$
$= g(2x^2 - 11x + 15)$
$= [2x^2 - 11x + 15]\,a + b = 4x^2 - 14x + 11$

$-11a = -14$

$-11a = -14$

$a = \frac{14}{11}$

$2a = 4$

$a = 2$

$15a + 6 = 11$

$27\frac{14}{11}$

32. Diketahui dua buah bilangan yaitu 16 dan 18. Bilangan yang harus ditambahkan sehingga didapat rata-rata yaitu 16 adalah...

16, 18, a

"rata"

$\frac{16+18+a}{3} = 16$

$a = 48 - 16 - 18$

$a = 14$

Jika $f(x-1) = 5x^2 + 6x - 6$; $g(x) = ax+1$ dan $(gof)(1) = -51$ maka nilai $f(a+1) = ...$

$f(x-1) = 5x^2 + 6x - 6$

$x - 1 = 1$

$x = 2$

$g(x) = ax + 1$

$(g \circ f)(1) = -51$

$f(2-1)$

$= 5(2)^2 + 6(2) - 6$

$= 20 + 12 - 6$

$= 26$

$g(f(1)) = g(26) = -51$

$26a + 1 = -52$

$26a = -52$

$a = \frac{-52}{26} = -2$

$x - 1 = -2$

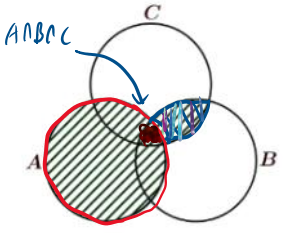
$x = -1$

$f(a+1) = f(-2)$

$f(-1-1) = 5(-1)^2 + 6(-1) - 6$

$= 5 - 6 - 6 = -12$

$= -7$

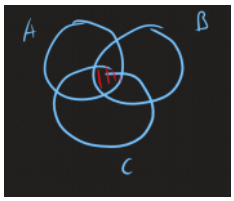


A ∪ Biru

Biru = (C ∪ B) − (A ∩ B ∩ C)

A ∪ [(C ∪ B) − (A ∩ B ∩ C)]

$A \cup [(C \cup B) - (A \cap B \cap C)]$



$A \cap B \cap C$