

Matematika

1. 36455478354 ni $2, 4, 5, 9, 10$, va 25 ga bo'lganda hosil bo'lgan qoldiqlar yig'indisini toping.

- A) 18 B) 16 C) 15 D) 14

2. Soddalashtiring:

$$2 \frac{2}{3} \cdot \left(1 \frac{1}{2} a - 2 \frac{1}{4} \right) + 1 \frac{1}{5} \cdot \left(2 \frac{1}{2} a - \frac{5}{6} \right)$$

- A) $a+5$ B) $7a-7$ C) 7 D) $1,5a-5$

3. Teploxdod daryo oqimi bo'ylab 9 soatda, oqimiga qarshi 11 soatda otganicha yo'l yuradi. Agar daryo oqimining tezligi 2 km/soat bo'lsa, teploxdoning xysxiy tezligini toping.

- A) 18 B) 20 C) 22 D) 24

4. Ko'paytuvchilarga ajrating. $b^2 + ab - 2a^2 - b + a$

- A) $(a - b)(2a - b)$ B) $(a + b)(2a - b - 1)$
 C) $(a - b)(2a - b - 1)$ D) $(b - a)(2a + b - 1)$

5. Teng yonli ABC uchburchakning BC asosi 2 ga, yon tomonlari 8 ga teng. Uchburchakning AB tomoniga CD balandlik tushirilgan. ADC uchburchakning yuzi BDC uchburchakning yuzidan necha marta katta?

- A) 17 B) 23 C) 4 D) 31

6. $\left(x + 3\frac{2}{9}\right) : 4\frac{1}{6} = 6$ da x ni toping.

- A) $22\frac{2}{9}$ B) $21\frac{7}{9}$ C) $22\frac{1}{3}$ D) $20\frac{4}{9}$

7. ABCD to'rtburchakning B burchagi to'g'ri, C burchagi 150° , D burchagi 60° . CD tomoni 12 sm va AD tomoni 30 sm bo'lsa, AB tomonini toping.

- A) 12 B) 21 C) 30 D) 42

8. Tenglamalar sistemasini yeching;

$$\begin{cases} 5y + 8(x - 3y) = 7x - 12, \\ 9x + 3(x - 9y) = 11y + 46; \end{cases}$$

- A) (1 ; 7) B) (7; 1) C) (-1; -7) D) (-1 ; 7)

9. 100 va 120 sonlarining EKUK ning natural bo'lувчилари нечта?

- A) 20 B) 22 C) 24 D) 26

10. Agar $a = \frac{5}{11}$, $b = \frac{3}{7}$, $c = \frac{6}{13}$ bo'lsa, a , b , va c ni o'sish tartibida joylashtiring.

- A) $a;b;c$ B) $b;a;c$ C) $b;c;a$ D) $c;b;a$

11. $\frac{(x^4 - 16)(x - 2)}{x^4 - 4x^3 + 8x^2 - 16x + 16}$ ni soddalashtiring.

- A) $x+2$ B) $x-2$ C) $x^2 - 4$ D) $x+4$

12. Doiraning radiusi 25 sm ga teng. Shu aylananing markazidan $12,5$ sm uzoqlikda joylashgan vatori hosil qilgan segmentning yuzini toping.

A) $625\left(\frac{\pi}{3} - \frac{\sqrt{3}}{4}\right)$ B) $625\left(\frac{\pi}{6} - \frac{\sqrt{3}}{4}\right)$

C) $625\left(\frac{\pi}{6} - \frac{1}{4}\right)$ D) $625\left(\frac{\pi}{12} - \frac{1}{4}\right)$

13. Bir avtomobil o'zidan 120 km oldinda 170 km/soat tezlik bilan ketayotgan motosiklni 3 soatda quvib o'tishi uchun qanday tezlikda harakatlanishi kerak?

- A) $183\frac{1}{3}$ B) 210 C) 250 D) 290

14. Tenglamaning ildizlari yig'indisini toping.

$$\sqrt{x + 4\sqrt{x + 1 + 5}} + \sqrt{18 + 6\sqrt{9 - x}} - x = 9$$

- A) 7 B) 3 C) 8 D) 6

15. $y = x^2 - 5x - 14$ funksiyaning koordinata o'qlari bilan kesishish nuqtalari yordamida uchburchak yasaldi. Shu uchburchakning yuzini toping.

- A) 63 B) 49 C) 35 D) 98