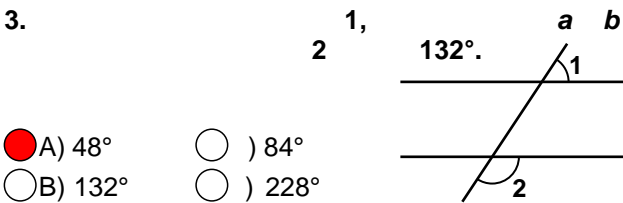


1. $a^8 \cdot a^3 = a^{13} : a^2$ A) $b^6 \cdot b^{27} = b^{20} \cdot b^{13}$ B) $50 \cdot 27 = (11)^6$ C) $d^{16} : d^3 = d^7 \cdot d^6$ D) ?

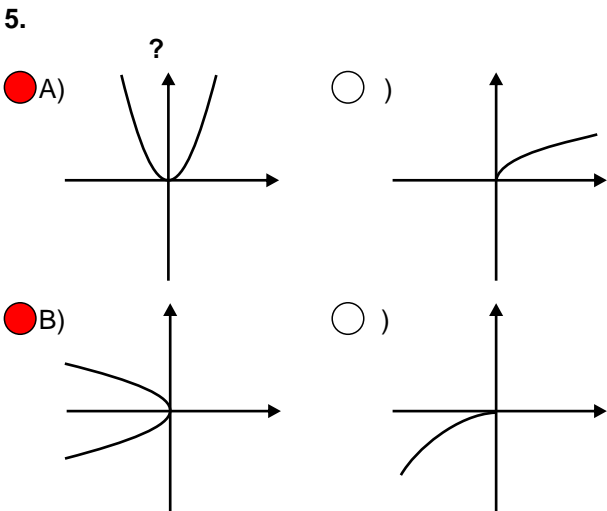
2. $3c \cdot \frac{a^{10}}{b^5} \cdot \frac{1}{4} \cdot \frac{(c^7)^7}{a^5} \cdot b^{11}$:

- A) $\frac{3}{4} b^5 a^6 c^7$ B) $\frac{3}{4} a^5 b^6 c^7$
 C) $\frac{3}{4} c^5 a^6 b^7$ D) $34 a^{10} b^{11} c^7$



4. $a = 2:$
 $\frac{3}{4} \cdot ((a)^{2^3})^3 + 8 \cdot \frac{(a^{25})^4}{10 \cdot (a^{32})^3}$

A) $56 \frac{4}{5}$ B) $50 \frac{4}{5}$ C) $45 \frac{8}{10}$ D) $50 \frac{8}{10}$

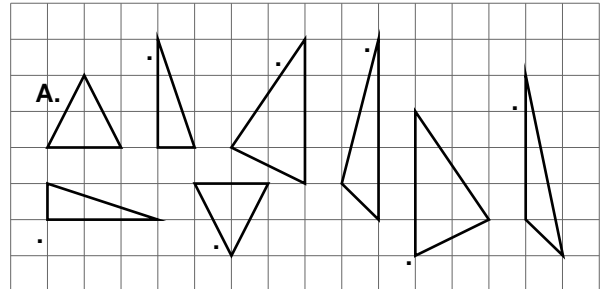


6. $a = 2; b = 9; c = 2$
 $\frac{(a+c)^2 - (b-d)^2}{(a-c)^2 - (b+d)^2}$

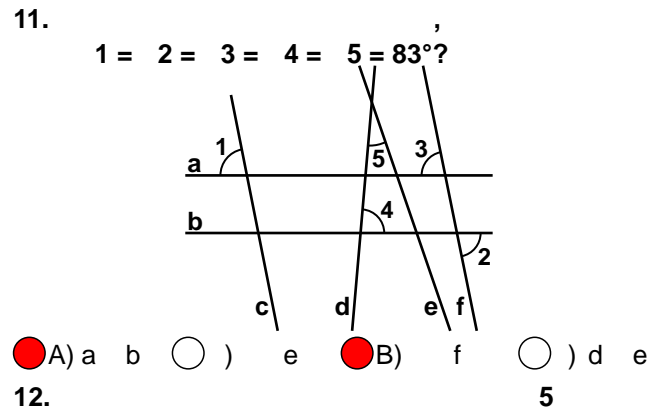
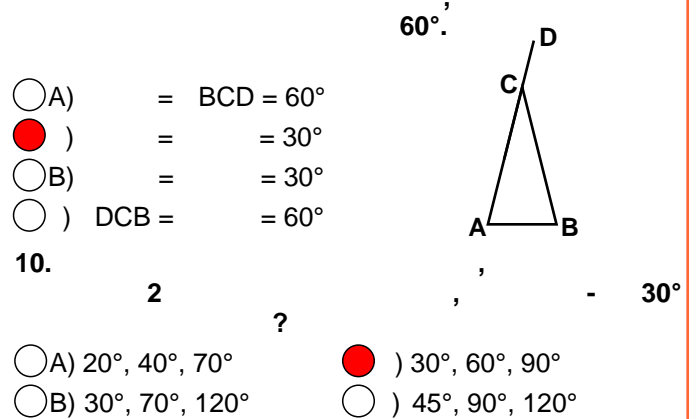
A) 0 B) 12 C) 20 D) 24

7. x y
 $\begin{cases} 10x - 6y = 52 \\ 10y + 12x = 200 \end{cases}$

- A) 2 B) 8 C) 10 D) 18
8. ?



- A) B) C) D)



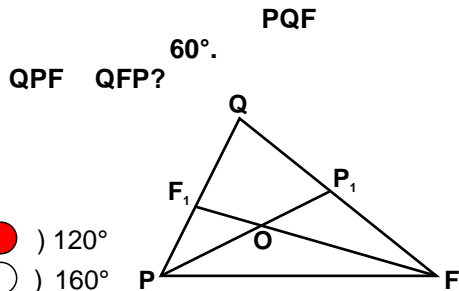
13.

$a = 2, b = 3.$

$$-\left(\frac{a}{3b+2} - \frac{b}{3a+2}\right)$$

- A) $\frac{5}{28}$ B) $\frac{6}{28}$ C) $\frac{8}{56}$ D) $\frac{10}{56}$

14.



- A) 60° B) 120°
 C) 140° D) 160°

15.

$$\frac{x^2 - 16x + 64}{x^2 - 64} = \frac{1}{9}$$

- A) 1 B) 2 C) 4 D) 6

16.

$S(n) = 8?$

- A) 18 B) 24 C) 30 D) 36

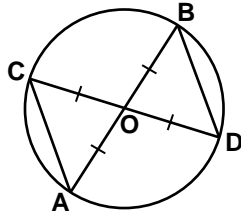
17.

$11^{2017} - 11^{2015}?$

- A) 0 B) 1 C) 3 D) 5

18.

- A) $D = D$
 B) $D = D$
 C) $D = D$
 D) $D = D$



19.

- A) 1 B) 2 C) 3 D) 4

20.

$50 - 20$

- A) 45 ; 2, 2, 1 B) 11 ; 8, 8, 4
 C) 9 ; 10, 10, 5 D) 7 ; 16, 16, 8

21.

$KQN? = MN.$

- A) 90° B) 120° C) 135° D) 150°

22.

- A) AECQB B) BQECA
 C) BECQA D) AQCEB

23.

- A) 5 B) 8
 C) 10 D) 12

24.

- A) 1 / B) 1,5 /
 C) 2,5 / D) 5 /

25. x, y, z -

440.

- A) 975 B) 843 C) 875 D) 758

26.

- A) ,5 B) ,6
 C) ,7 D) ,8

27.

- A) ,1
 B) ,2
 C) ,3
 D) ,4

28.

- A) 2202100111211 B) 2102111121011
 C) 2210111111100 D) 2100111121001

29.

- A) 3 B) 5 C) 7 D) 9

30.

- A) 5 B) 11 C) 21 D) 25