

1 A B f ()

A $A = \mathbb{R}, B = \{ \quad \}, f : A$

B $A = \{0,1\}, B = \{-1,0,1\}, f : A$

C $A = \mathbb{Z}, B = \mathbb{Q}, f : A$

D $A = \{-1,0,1\}, B = \{-1,0,1\}, f : A$

2 $f(\frac{1}{2}x-1) = 2x-5$ $f(a) = 6$ a ()

A $-\frac{7}{4}$

B. $\frac{7}{4}$

C. $\frac{4}{3}$

D $-\frac{4}{3}$

3 $y = f(x)$ R ()

$y = f(|x|)$ $y = f(-x)$ $y = xf'(x)$ $y = x + f(x)$

A

B

C

D

4. $y = \sqrt{x-2} + \frac{1}{x-4}$

A. $[4, +\infty)$

B. $[2, 4]$

C. $[2, 4) \cup (4, +\infty)$

D. $[-4, 2]$

5. $f(x) = \begin{cases} x^2 - ax, & x \leq 0 \\ ax^2 + x, & x > 0 \end{cases}$ $a =$ ()

A. 1

B. 1

C. 0

6. $0-200$

0.5

200

400

0.6

400

0.8

9

420

9

()

A. 210

B. 232

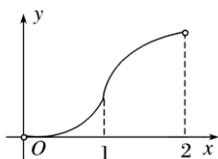
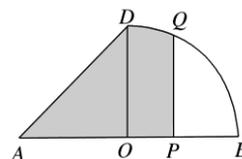
C. 236

D. 276

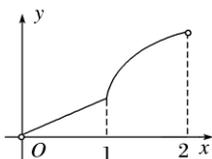
7. $\triangle AOD$ 1 OBD P

AB $PQ \perp AB$ PQ AD DB Q $AP = x(0 < x < 2)$

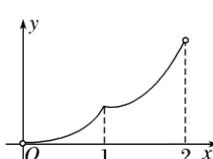
APQ (APQD) y $y = f(x)$ ()



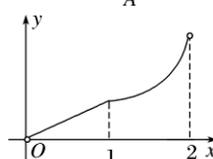
A



B



C



D

18 $x \quad -x^2 + ax + b > 0.$

(1) $(-4, 2),$

(2) $b = a + 1$

19. $f(x) = \frac{2x-1}{x+1}, x \in [3, 5].$

(1) $f(x) \quad [3, 5]$

(2) $f(x) \quad .$

20 $f(x) \quad x, y \in R, \quad f(x) + f(y) = f(x+y) \quad x > 0 \quad f(x) < 0.$

(1) $f(x) \quad R$

(2) $f(x) \quad R$

(3) $f(1) = -\frac{2}{3}, \quad f(x) \quad [-3, 3]$

21.

$ABC \quad DEF \quad AB \perp BC, EF \perp DF, DF \perp AB$

$FD \quad BA$

$O \quad AB = 3km \quad BC = 4km \quad DF = \frac{9}{4}km \quad FE = 3km$

$$EC = \frac{3}{2}km$$

x, y

$xOy \quad DE$

$$y = \frac{x+b}{x+a}$$

AC

$$y = kx + m$$

1 a, b, k, m

2 MN

$MN \perp AC \quad M \quad t \quad MN$

$l \quad t \quad l = f(t)$

$t \quad l$

