8. ——  ——

15. Solve the equation $\frac{2}{x-2}+\frac{1}{1-2x}=0$

A) $\frac{-1+34}{3}$ B) $\frac{1+\sqrt{21}}{2}$ C)0 D) 1 E) $\frac{-1-\sqrt{21}}{2}$

16. The inequality $x^2+3x+2<0$ is equivalent to

A) x cannot be equal to –2 B) x<-2 C) x>-4 D) –2<x<-1 E) x>-2

17. Write an equation for the line shown in the following picture.

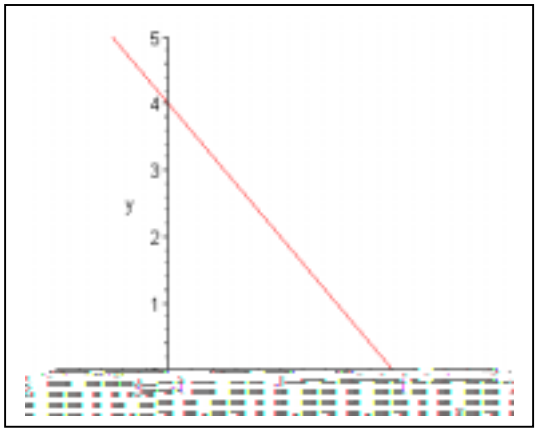
A) y=2x-3

B) y=-2x+4

C) y=5+x

D) y=4x-3

E) y=5x-3

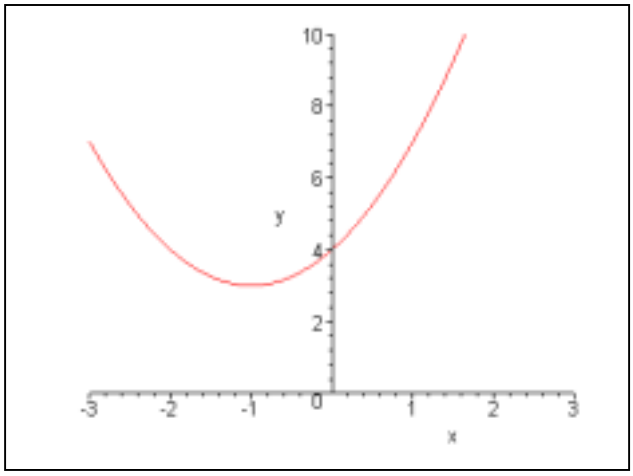



18. Which of the following is an equation of the line with slope -4 through the point (1,2)?

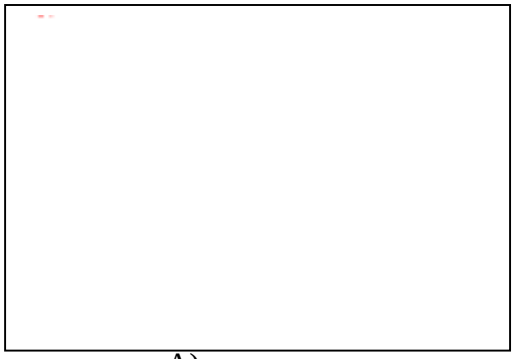
A) y-2=-4(x-1) B) y-4=4(x+1) C) y-5=3(x-9) D) y+4=4(x-9) E) y-2=3(x-9)

19. Which of the equations represents the following graph?

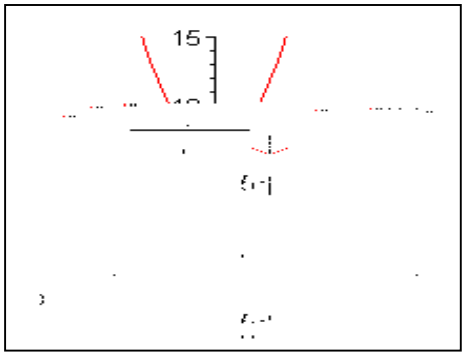
A) $x^2+8$
B) $2(x-1)^2+4$
C) $x^2+4$
D) $2x^2+3x+4$
E) $(x+1)^2+4$



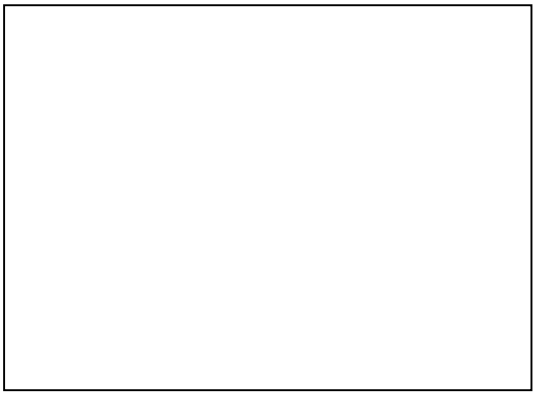
20) Which of the following best represents the graph of $1/(x+1)^2$ ?



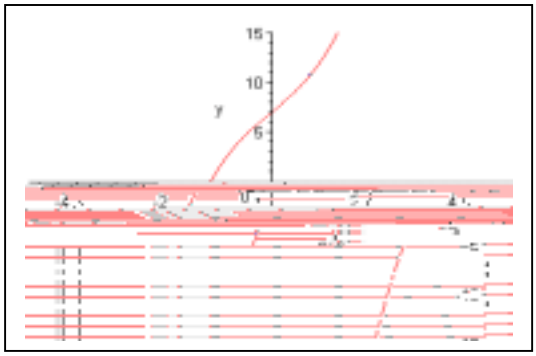
A)



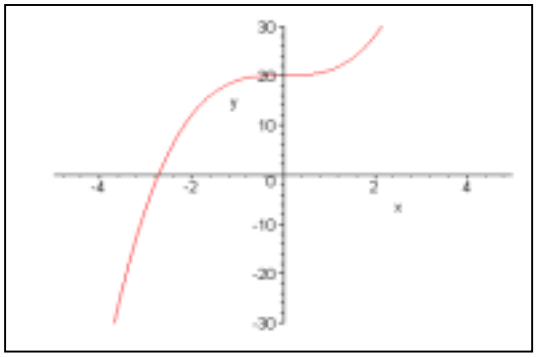

B)



C)




D)




E)

21. Let $f(x)=(x+1)^3$ and let $g(x)=3x^2+1$ , find the value of g(f(1)).

A) 112 B) 193 C)-194 D) 111 E) 331

22. Find $\frac{f(x)-f(1)}{x-1}$, if f is the function defined by f (x)=1-2x.

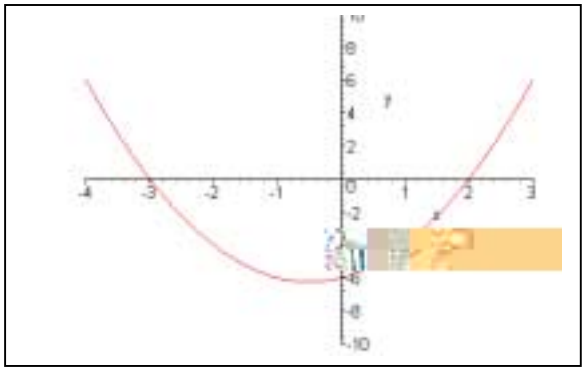
A) x+1 B)1 C) 2 D) x-2 E) -2

23. A rectangle of width W and length L has area 60 square inches. Express the perimeter, P, of the rectangle as a function of the rectangle's width.

A) WL=200 B) P=w+L C) P=3W+1000/W D) P=2W+120/W E) $P=2W-1000/W^2$

24. When is f(x)<0 for the function f whose graph is the parabola given in the following figure ?

A) –3<x<-1
B) 4<x<3
C) x>0
D) –3<x<2
E) x>-7



25. Find the value of $3e^{2\ln 3}$.

A) 27 B) 4 C) 28 D)30 E) 3

26. Solve the equation $3e^{2x+4} = e^4$.

A) –ln3/2 B) –ln3 C) (ln3-5)/3 D)1/5 E) (ln3-6)/3

1. C
2. C
3. A
4. B
5. D
6. C
7. A
8. B
9. A
10. E
11. B
12. B
13. A
14. E
15. C
16. D
17. B
18. A
19. E
20. A
21. B
22. E
23. D
24. D
25. A
26. A