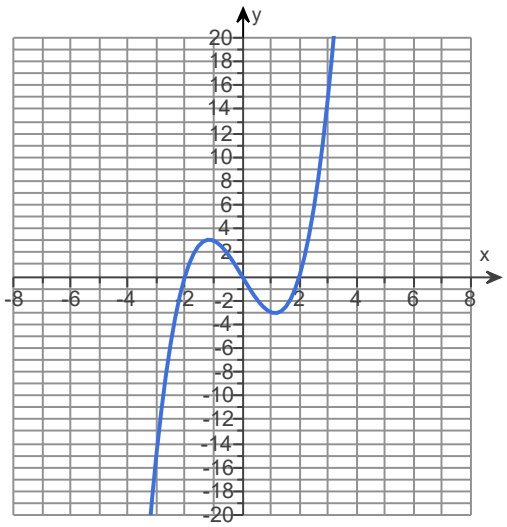
1. $(3, -1), (3, -7)$

---

2. A. The intercept(s) is/are **(0,0), (2,0), (− 2,0)**.
(Type an ordered pair. Use a comma to separate answers as needed. Type an exact answer for each coordinate, using radicals as needed.)

C. The graph is symmetric with respect to the origin.



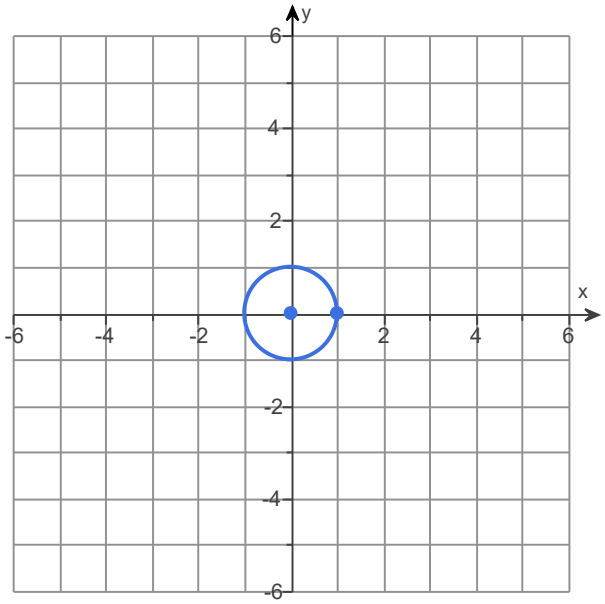
---

3. A. The solution set is $\left\{ \frac{24}{5} \right\}$.(Simplify your answer. Use a comma to separate answers as needed.)

---

4. $x^2 + y^2 = 1$

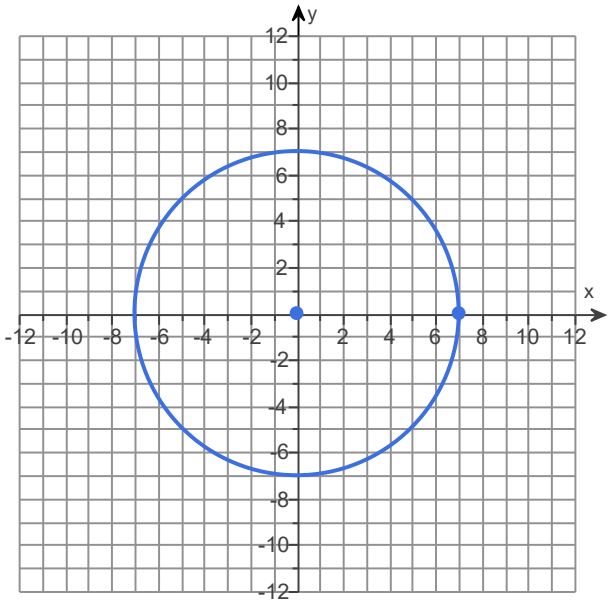
$x^2 + y^2 - 1 = 0$



---

5. (0,0)

7



A. The intercept(s) is/are **(−7,0),(7,0),(0,−7),(0,7)**.

(Type an ordered pair. Use a comma to separate answers as needed. Type exact answers for each coordinate, using radicals as needed.)

---

6. $(x+1)^2 + (y-5)^2 = 13$

---

7. $[7,\infty)$

---

8. 3

---

9. $[-9,-7],[-1,1],[3,6]$

---

10. A. Yes, there is a local maximum at -4, and it is **9**.(Type an integer or a fraction.)

---

11. 5

$y = 5x - 24$

---

12. B. $y = |x|$

---

13. -2

3

18

212

---

14. $x + 2$

    0

    x

    0

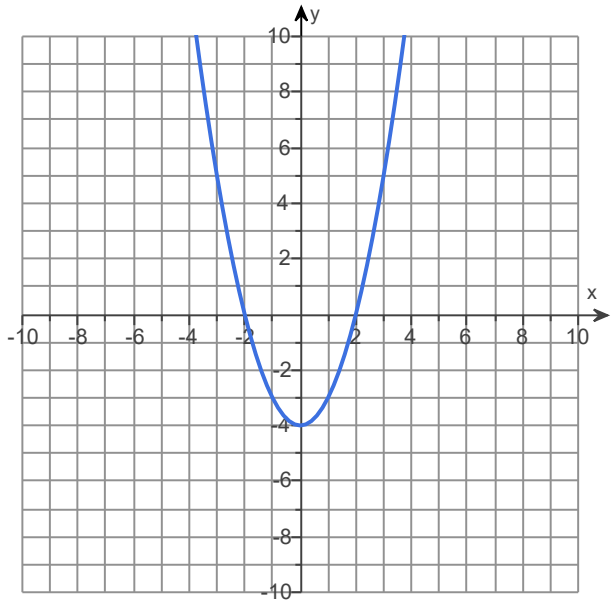
---

15. 2

    5

    -4

16.



    $(-\infty,\infty)$

    $[-4,\infty)$

---

17. 500

    >

    500

---

18. $-W^2 + 200W$

    100

    (1) yards.

    10,000

    (2) square yards.

---

19. 2

$\frac{1}{2}$

$\frac{3}{2}$

---

20. B. It is a polynomial of degree **4** .(Type an integer or a fraction.)

A.

The polynomial in standard form is G(x) = $\mathbf{2x^4 - 4x^3 + 10x^2 - 16x + 8}$ with leading term $\mathbf{2x^4}$ and constant **8** .

(Simplify your answers. Use integers or fractions for any numbers in the expressions.)

---

21. $x^3 - 6x^2 - 9x + 54$

---

22. A.

The graph shows a polynomial function. The real zero(s) is/are **− 3,3,4** . The least degree the polynomial can have is **3** .

(Use a comma to separate answers as needed. Round to the nearest integer as needed.)

---

23. x^3

0,10

0

0,10

2

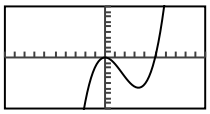
(1) touches

0

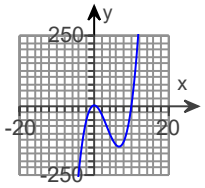
1

(2) crosses

10

D. 

(0,0),(6.67, − 148.15)



A.

(− ∞,∞)

(− ∞,0],[6.67,∞)

[0,6.67]

---

24. $-5i,4$

---

25. A. The domain of R(x) is {x | **x ≠ − 20** }.

(Type an inequality in the form x ≠ . Use integers or fractions for any numbers in the expression. Use a comma to separate answers as needed.)

---

26. A. The domain of the function is $\{x \mid$ **$x \neq -4, x \neq 4$** $\}$.
(Type an inequality in the form $x \neq$. Use integers or fractions for any numbers in the expression. Use a comma to separate answers as needed.)

A. The range of the function is $\{y \mid$ **$y \leq 0, y > 3$** $\}$.
(Type an inequality. Use integers or fractions for any numbers in the expression. Use a comma to separate answers as needed.)

A. The intercept(s) is/are **(0,0)** .(Type an ordered pair. Use a comma to separate answers as needed.)

A. The function has one horizontal asymptote, **$y = 3$** .(Type an equation.)

B. The function has two vertical asymptotes. The leftmost asymptote is **$x = -4$** and the rightmost asymptote is **$x = 4$** .
(Type equations.)

C. The function has no oblique asymptotes.

---

27. B. The function has two vertical asymptotes. The leftmost asymptote is **$x = -1$** and the rightmost asymptote is **$x = 1$** .
(Type equations. Use integers or fractions for any numbers in the equations.)

A. The function has one horizontal asymptote, **$y = 0$** .
(Type an equation. Use integers or fractions for any numbers in the equation.)

C. The function has no oblique asymptote.

---

28. 4

5

-1

-2

---

29. $(-2, 3)$

---

30. x

B. No values should be excluded from the domain.

x

B. No values should be excluded from the domain.

Yes

---

31. x

A. $x \neq$ **7** (Use a comma to separate answers as needed.)

x

A. $x \neq$ **-3** (Use a comma to separate answers as needed.)

Yes

---

32. $\frac{3x}{8x-7}$

C. The domain is $\{x|x \neq \boxed{\frac{3}{8}}\}$.(Type integers or fractions. Use a comma to separate answers as needed.)

C. The range is $\{y|y \neq \boxed{\frac{7}{8}}\}$.(Type integers or fractions. Use a comma to separate answers as needed.)

B. The domain is $\{x|x \neq \boxed{\frac{7}{8}}\}$.(Type integers or fractions. Use a comma to separate answers as needed.)

A. The range is $\{y|y \neq \boxed{\frac{3}{8}}\}$.(Type integers or fractions. Use a comma to separate answers as needed.)

---

33. -4

---

34. $e^x = 11$

---

35. $\frac{\ln 3}{8}$

---

36. $x^2 + 2 = 5^2$

$-\sqrt{23}, \sqrt{23}$

---

37. $\log_a\left(\frac{uw^4}{v}\right)$

---

38. A. The solution set is $\{\boxed{7}\}$.
(Simplify your answer. Type an exact answer. Use a comma to separate answers as needed.)

---

39. A. The solution set is $\{\boxed{\frac{\ln 7}{\ln 6}}\}$.
(Simplify your answer. Use a comma to separate answers as needed. Use integers or fractions for any numbers in the expression. Type an exact answer, using radicals as needed.)
