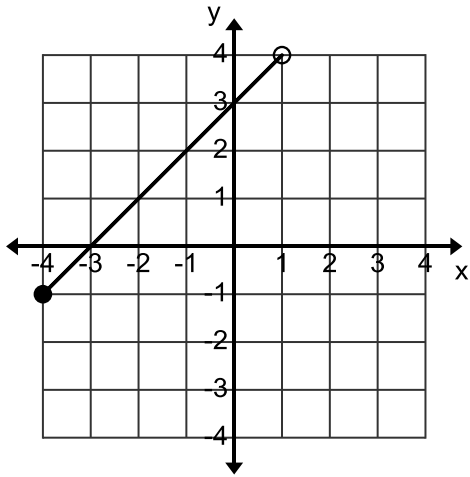


Review Quiz 12 (50 questions)

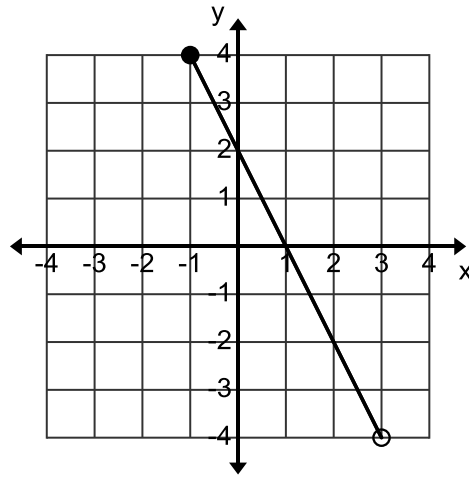
- _____1. Simplify $(x-1)(x^2+2x+3)$
A. x^3+x^2+x-3 B. x^3+2x^2+x-3
C. x^3+x^2-x-3 D. x^3+x^2+2x-3
- _____2. Simplify $2(2n-4)-(6n-2)$
A. $-2n-10$ B. $-2n-6$ C. $2n-10$ D. None of the above
- _____3. Simplify $(n+5)^2$
A. n^2+25 B. n^2+10 C. $n^2+10n+25$ D. $n^2+10n+10$
- _____4. Simplify $(2n^3+5n)(4n^3+2n)$
A. $8n^6+24n^4+10n^2$ B. $8n^9+24n^4+10n^2$
C. $8n^6+20n^3+10n$ D. $8n^9+24n^3+10n^2$
- _____5. Simplify $(2n^3)^3$
A. $6n^6$ B. $6n^9$ C. $8n^6$ D. $8n^9$
- _____6. Simplify $(x+2)(x+2)(x+2)$
A. x^3+8 B. $x^3+6x^2+4x+12$
C. $x^3+6x^2+12x+8$ D. $x^3+8x^2+12x+8$
- _____7. Simplify $\sqrt{-40}$
A. $2\sqrt{10}$ B. $2i\sqrt{10}$ C. $4i\sqrt{10}$ D. $10i\sqrt{2}$
- _____8. Simplify $\sqrt{20a^3y^{10}}$
A. $2ay^5\sqrt{5a}$ B. $5ay^5\sqrt{2a}$ C. $2ay^5\sqrt{5a}$ D. $5ay^5\sqrt{2ay}$
- _____9. Simplify $\sqrt[3]{x^4y^{10}}$
A. $xy^4\sqrt[3]{xy}$ B. $xy^3\sqrt[3]{xy^2}$ C. $xy^3\sqrt[3]{xy}$ D. $xy\sqrt[3]{y}$
- _____10. Solve by factoring: $x^2-x-20=0$
A. $x=-5$ or $x=4$ B. $x=5$ or $x=-4$
C. $x=5$ or $x=4$ D. $x=-5$ or $x=-4$
- _____11. Simplify $(a^4n^3x^6)(a^2n^3x^6)$
A. $a^8n^6x^{12}$ B. $a^6n^9x^{12}$ C. $a^6n^6x^{36}$ D. $a^6n^6x^{12}$
- _____12. Simplify $\sqrt{-80a^2}$
A. $4a\sqrt{5}$ B. $2ai\sqrt{10}$ C. $4ai\sqrt{5}$ D. None of the above

- _____25. Simplify $\frac{n^2 + 4n + 3}{n^2 + 7n + 12}$
- A. $\frac{n+3}{n+4}$ B. $\frac{1}{n+4}$ C. $\frac{1}{3n+4}$ D. $\frac{n+1}{n+4}$
- _____26. Simplify $\frac{n^2 - 16}{n^2 + n - 20}$
- A. $\frac{n-4}{n-5}$ B. $\frac{n+4}{n-5}$ C. $\frac{n+4}{n+5}$ D. Doesn't simplify
- _____27. Simplify $\frac{n^2 + 9n - 10}{n^2 - 3n - 4}$
- A. $\frac{n+10}{n+4}$ B. $\frac{n+10}{n-4}$ C. $\frac{n+6n-6}{1}$ D. Doesn't simplify
- _____28. Perform the following division $n+4 \overline{)n^2 + 5n + 2}$
- A. $n+9 + \frac{-34}{n+4}$ B. $n+1 + \frac{-2}{n+4}$ C. $n+1 + \frac{6}{n+4}$ D. $n+9 + \frac{38}{n+4}$
- _____29. Perform the following division $n-2 \overline{)n^2 + 3n - 1}$
- A. $n+5 + \frac{-11}{n-2}$ B. $n+5 + \frac{9}{n-2}$ C. $n+1 + \frac{1}{n-2}$ D. $n+1 + \frac{-3}{n-2}$
- _____30. $\left(\frac{2}{3}\right)^{-3}$ **NO CALCULATOR ALLOWED!**
- A. $\frac{6}{27}$ B. $\frac{8}{27}$ C. $\frac{27}{8}$ D. $-\frac{8}{27}$
- _____31. Simplify $\left(\frac{n^2 y^{-2}}{a^{-4}}\right)^2$
- A. $\frac{n^4 y^4}{a^{16}}$ B. $\frac{n^4 y^4}{a^8}$ C. $\frac{n^4 a^{16}}{y^4}$ D. $\frac{n^4 a^8}{y^4}$
- _____32. Simplify $(2a^{-3})^{-2}$
- A. $\frac{4}{a^6}$ B. $4a^6$ C. $\frac{a^6}{4}$ D. $\frac{a^5}{4}$
- _____33. Simplify $\left(\frac{2a^3}{5b^2}\right)^{-2}$
- A. $\frac{25b^4}{4a^6}$ B. $\frac{4b^4}{25a^6}$ C. $\frac{25a^6}{4b^4}$ D. $\frac{25a^6 b^4}{4}$

- ____34. Simplify $(a^{-3}b^{-2})^{-2}$
 A. $\frac{-1}{a^6b^4}$ B. $\frac{a^6}{b^4}$ C. $\frac{1}{a^6b^4}$ D. a^6b^4
- ____35. Factor $16a^4b^2 + 20ab^5$
 A. $ab^2(16a^3 + 20b^3)$ B. $ab(16a^3b + 20b^4)$
 C. $4ab^2(4a^3 + 5b^3)$ D. None of the above
- ____36. Factor $8n^3 + 27y^3$
 A. $(2n + 3y)(4n^2 + 6ny + 9y^2)$ B. $(2n + 3y)(4n^2 - 6ny + 9y^2)$
 C. $(2n - 3y)(4n^2 + 6ny + 9y^2)$ D. $(2n + 3y)(4n^2 - 6ny - 9y^2)$
- ____37. Factor $n^3 + 8$
 A. $(n + 2)(n^2 + 2n + 4)$ B. $(n + 2)(n^2 - 2n + 4)$
 C. $(n - 4)(n^2 + 4n + 2)$ D. $(n + 4)(n^2 - 4n + 2)$
- ____38. If $f(x) = 2x^2 - 4$, what is $f(2)$?
 A. 2 B. 4 C. 8 D. 12
- ____39. If $f(x) = -2x - 5$, what is $f(-3)$?
 A. 1 B. 2 C. 4 D. -11
- ____40. If $f(x) = 3x - 1$ and $g(x) = 2x + 1$, what is $f(g(2))$?
 A. 12 B. 11 C. 14 D. 13
- ____41. If $f(x) = 3x - 10$ and $g(x) = 2x + 1$, what is $f(g(x))$?
 A. $6x - 19$ B. $6x - 13$ C. $6x + 13$ D. $6x - 7$
- ____42. What is the domain of $f(x) = \sqrt{x-3}$?
 A. $x \neq 3$ B. $x > 3$ C. $x \geq 3$ D. None of the above
- ____43. What is the domain of $f(x) = \frac{x^3}{x-3}$?
 A. $x \neq 3$ B. $x > 3$ C. $x \geq 3$ D. None of the above
- ____44. What is the domain of $f(x) = \frac{x^3 + 4x - 1}{\sqrt{x}}$?
 A. $x \leq 0$ B. $x \neq 0$ C. $x > 0$ D. $x \geq 0$
- ____45. What is the domain of $f(x) = x^3 - 8$?
 A. $x \neq 2$ B. \mathbb{R} C. $x \geq 2$ D. $x > 2$
- ____46. What is the inverse of $f(x) = 3x - 5$?
 A. $y = \frac{x+5}{3}$ B. $y = \frac{x+3}{5}$ C. $y = \frac{x}{3} + 5$ D. $y = \frac{x-3}{5}$



I



II

- _____47. What is the **domain** of the graph I above?
 A. $\mathbb{R} : -1 < x \leq 4$ B. $\mathbb{R} : -1 \leq x < 4$ C. $\mathbb{R} : -4 < x \leq 1$ D. $\mathbb{R} : -4 \leq x < 1$
- _____48. What is the **range** of the graph I above?
 A. $\mathbb{R} : -1 < y \leq 4$ B. $\mathbb{R} : -1 \leq y < 4$ C. $\mathbb{R} : -4 < y \leq 1$ D. $\mathbb{R} : -4 \leq y < 1$
- _____49. What is the **domain** of the graph II above?
 A. $\mathbb{R} : -1 < x \leq 3$ B. $\mathbb{R} : -1 \leq x < 3$ C. $\mathbb{R} : -4 < x \leq 4$ D. $\mathbb{R} : -4 \leq x < 4$
- _____50. What is the **range** of the graph II above?
 A. $\mathbb{R} : -1 < y \leq 3$ B. $\mathbb{R} : -1 \leq y < 3$ C. $\mathbb{R} : -4 < y \leq 4$ D. $\mathbb{R} : -4 \leq y < 4$