

1. $(x - 1)(x - 2)(x - 8)(x - 16) < 0$

2. $\frac{5x}{4x-12} > 0$

3. $3x^2 + 40x + 10 < -x^2 + 11x + 3$

4. $y^3 - 6y = 0$

5. $x^4 - x^2 = 3x^3 - 3x$

6. $(x^4 + 3)^2 - 11(x^2 + 3) + 28 = 0$

7. $x^4 - 5x^2 - 36 = 0$

8. $\frac{5+2\sqrt{2}}{5-2\sqrt{2}} + \frac{5-2\sqrt{2}}{5+2\sqrt{2}}$

9. $\sqrt[3]{4+2\sqrt{2}} \times \sqrt[3]{4-2\sqrt{2}}$

10. $\frac{16^{\frac{1}{2}} \sqrt[3]{9}}{3^{\frac{1}{3}} \sqrt{2}}$

11. $\frac{16^{\frac{1}{3}} \times \sqrt[5]{25}}{2^{\frac{1}{3}} \times 5^{-1.6}}$

12. $y = 2 + \frac{4}{x-3}$

13. $y = \sqrt{36 - x^2}$

14. $y = \frac{5-x^2}{x^2+2x-8}$

15. $y = 2tgx$

16. $\frac{1-\cos^2 x}{1-\sin^2 x}$

17. $\frac{1-tg(-x)}{s}$

18.
$$\begin{cases} x + y + z = 1 \\ 2x - 2y + z = 4 \\ 3x - y + 2z = 5 \end{cases}$$

19.
$$\begin{cases} x + y - z + w = 1 \\ 2x + 3y + z = 1 \\ 3x + 4y + z + 2w = 2 \\ y + 3z - 2w = -1 \end{cases}$$

19.
$$\begin{cases} -2x + z = 2 \\ x + 2y - z = 9 \\ 3x + 5y + 2z = 22 \end{cases}$$

20.

21. $f(x) = 3 \cos\left(\pi - \frac{\pi}{4}\right); f\left(-\frac{\pi}{4}\right) = ?$

22. $f(x) = \sqrt{5x - x^2}; f(1) = ?$

23. $f(x) = tg2x + 1; f(0) = ?$

24. $f(x) = \frac{\cos 5x + 1}{|x|}$

25. $f(x) = 4x^5 \sin \frac{x}{2}$

26.