

LT AA1: Team Test

Group Members:

All work must be done on a separate sheet of paper and then all team members must staple each member's work to this cover sheet

Solve each equation. Pick 2

1) $9 + 4m - 2m = m + 2$

2) $-36 - 6v = -6(5v - 6)$

3) $-21 + 4n = -3(-5n + 7)$

4) $6(1 - v) + v = -7 - 4(2v - 7)$

Solve each inequality. Put your answers on a number line. Pick 2.

5) $172 < -5 + 3(3 + 7x)$

6) $-228 < 6(-5n - 3)$

7) $-2(-6v + 8) < -100$

8) $-140 \geq 4(7n - 7)$

Solve each equation by factoring or the quadratic formula.

9) $(2b + 3)(6b + 7) = 0$

10) $k^2 - 3k - 10 = 0$

11) $7x^2 + 8x - 12 = 0$

12) $3a^2 + 5a - 6 = 6$

Solve each equation.

13) $\frac{11}{4} = p + \frac{5}{4} - 2$

14) $-\frac{97}{196} = \frac{1}{7}n - \frac{15}{8}n$

15) $-\frac{3}{2} = -\frac{1}{3}n - \frac{5}{3}n$

16) $-\frac{1}{2}b - 1 = -\frac{3}{10} - 1\frac{3}{8}b$

Solve each equation. Remember to check for extraneous solutions.

17) $\frac{p-1}{2p^2} - 1 = \frac{p-2}{p^2}$

18) $\frac{k-4}{5k} = \frac{1}{k^2} + \frac{k-5}{k^2}$

19) $\frac{v-5}{v} + \frac{1}{v^2} = 1$

20) $\sqrt{b+5} = 10$

21) $\sqrt{2n-12} = \sqrt{15-n}$

22) $0 = -3\sqrt{\frac{x}{8}}$

23) $x - 6 = \sqrt{24 - 4x}$

Solve each equation.

24) $16 = 8 + x^{\frac{3}{2}}$

25) $9 = (b + 3)^{\frac{2}{3}}$

26) $-3 + (p + 8)^{\frac{1}{3}} = 2$

27) $27 = (81n)^{\frac{3}{4}}$

Solve each equation for the indicated variable.

28. Solve for y : $3x - 7y = 21$

30. Solve for m : $2n - 3m > 7m - 6n + 2$

32. Solve for x : $\frac{5x}{2} - 2m \leq 3$

29. Solve for x : $\frac{2}{3}x + y = 8y - 1$

31. Solve for h : $4gh - 2 = 5$

33. Solve for k : $3 - (k + 4h) > k - 6k + 16h$

Simplify each expression leaving only positive exponents.

34. Simplify: $\frac{x^2 \cdot x^7}{x^8}$

35. Simplify: $\left(\frac{x^3y}{xy^4}\right)^{-2}$

Solve each equation for x .

36. $x^3 = 729$

37. $x^{\frac{1}{2}} = 16$

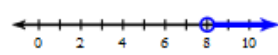
Answers:

Answers to AA1 Team Test

1) $\{-7\}$

2) $\{3\}$

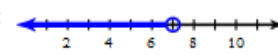
5) $x > 8$:



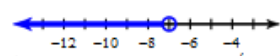
3) $\{0\}$

4) $\{5\}$

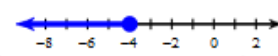
6) $n < 7$:



7) $v < -7$:



8) $n \leq -4$:



9) $\left\{-\frac{3}{2}, -\frac{7}{6}\right\}$

10) $\{5, -2\}$

11) $\left\{\frac{6}{7}, -2\right\}$

12) $\left\{\frac{4}{3}, -3\right\}$

13) $\left\{\frac{7}{2}\right\}$

14) $\left\{\frac{2}{7}\right\}$

15) $\left\{\frac{3}{4}\right\}$

16) $\left\{\frac{4}{5}\right\}$

17) $\left\{1, -\frac{3}{2}\right\}$

18) $\{4, 5\}$

19) $\left\{\frac{1}{5}\right\}$

20) $\{95\}$

21) $\{9\}$

22) $\{0\}$

23) $\{6\}$

24) $\{4\}$

25) $\{24, -30\}$

26) $\{117\}$

27) $\{1\}$

28. $y = \frac{3}{7}x - 3$

29. $x = \frac{27}{2}y - \frac{3}{2}$

30. $m < \frac{4}{5}n - \frac{1}{5}$

31. $h = \frac{7}{4g}$

32. $x \leq \frac{4}{5}m + \frac{6}{5}$

33. $k > 5h - \frac{4}{3}$

34. X

35. $\frac{y^6}{x^4}$

36. $X = 9$

37. $X = 256$