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

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

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

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

Solve each equation. Remember to check for extraneous solutions.

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

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

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

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

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

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

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: $3x - 7y = 21$

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

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

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

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

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

Simplify each expression leaving only positive exponents.

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

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

Solve each equation for x.

36. $x^3 = 729$

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

Answers:

Answers to AA1 Team Test

1) $\{-7\}$ 2) $\{3\}$ 3) $\{0\}$ 4) $\{5\}$

5) $x > 8$:

6) $n < 7$:

7) $v < -7$:

8) $n \le -4$:

9) $\left\{-\dfrac{3}{2}, -\dfrac{7}{6}\right\}$ 10) $\{5, -2\}$ 11) $\left\{\dfrac{6}{7}, -2\right\}$ 12) $\left\{\dfrac{4}{3}, -3\right\}$

13) $\left\{\dfrac{7}{2}\right\}$ 14) $\left\{\dfrac{2}{7}\right\}$ 15) $\left\{\dfrac{3}{4}\right\}$ 16) $\left\{\dfrac{4}{5}\right\}$

17) $\left\{1, -\dfrac{3}{2}\right\}$ 18) $\{4, 5\}$ 19) $\left\{\dfrac{1}{5}\right\}$ 20) $\{95\}$

21) $\{9\}$ 22) $\{0\}$ 23) $\{6\}$ 24) $\{4\}$

25) $\{24, -30\}$ 26) $\{117\}$ 27) $\{1\}$

28. $y = \dfrac{3}{7}x - 3$ 29. $x = \dfrac{21}{2}y - \dfrac{3}{2}$

30. $m < \dfrac{4}{5}n - \dfrac{1}{5}$ 31. $h = \dfrac{7}{4g}$

32. $x \le \dfrac{4}{5}m + \dfrac{6}{5}$ 33. $k > 5h - \dfrac{4}{3}$

34. X

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

36.   X = 9

37.   X = 256