

Junior Practice Sprint Round (UEB)

1. Three and eight-ninths minus two and five-sixths equals one and one-eighteenth.

$$3\frac{8}{9} - 2\frac{5}{6} = 1\frac{1}{18}$$

2. Point six is less than four-fifths.

$$.6 < \frac{4}{5}$$

The figure displays a 4x4 grid of 16 dot patterns. Each pattern is a 5x5 grid of dots, with some dots being black and others white. The patterns are numbered 1 through 16 in a 4x4 grid.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

3. Eight squared minus fifty

$$8^2 - 50$$

4. Thirty-five plus six multiplication dot seven

$$35 + 6 \cdot 7$$

The figure shows a 4x12 grid of dots. The dots are arranged in a pattern that suggests a sparse matrix structure. The pattern is symmetric across the main diagonal, indicating a symmetric matrix. The dots are arranged in a way that suggests a block structure, with some blocks being more densely populated than others.

- $$4(2 \times 7)$$

- $$2y + 6 = 15$$

- $$\left(\frac{3}{4}\right)^2 \approx 0.56$$

The figure consists of a 3x10 grid of small plots. Each plot contains 1000 simulated points. The points are distributed in various patterns across the grid, including horizontal lines, vertical lines, and diagonal lines. The patterns are more complex and varied in the bottom row compared to the top and middle rows.

- $$17 - 4(3)$$

9. Forty-five degrees

45°

10. Nine point six is greater than five point six nine.

$$9.6 > 5.69$$

11. Open parenthesis thirty minus twenty-nine
close parenthesis to the fourth power

$$(30 - 29)^4$$

The figure shows a sequence of 10 diagrams, each representing a 3x3 grid of dots. The dots are arranged in three rows and three columns. In the first row, all dots are black. In the second and third rows, the dots are white. The sequence shows the grid being updated from left to right, with the rightmost column being updated first, then the middle, and finally the leftmost column. The sequence ends with a final state where the grid is fully updated.

12. y plus sixteen equals twenty.

$$y + 16 = 20$$

Figure 1 consists of four 3x3 grids, each with a different pattern of black dots. (a) shows dots at (1,1), (2,2), and (3,3). (b) shows dots at (1,1), (1,2), (1,3), (3,1), (3,2), and (3,3). (c) shows dots at (1,1), (1,2), (1,3), (2,1), (2,2), and (2,3). (d) shows dots at (1,1), (1,2), (1,3), (1,4), (2,4), and (3,4).

13. Three-eighths is less than one-half.

$$\frac{3}{8} < \frac{1}{2}$$

14. One hundred eighty degrees

180°

15. Six open parenthesis eighteen plus twelve close parenthesis

$$6(18 + 12)$$

Figure 1 displays 30 small plots arranged in a 3x10 grid. Each plot shows a different spatial pattern of black dots on a white background. The patterns vary in density, clustering, and distribution across the plots.

16. Twenty-five equals five squared.

$$25 = 5^2$$

Figure 1 displays 16 dot patterns arranged in two rows of eight. The top row shows patterns for 1 through 8 dots, and the bottom row shows patterns for 9 through 16 dots. Each pattern is a 4x4 grid of dots, with some dots filled (black) and others empty (white).

17. One-sixth is greater than point one.

$$\frac{1}{6} > .1$$

18. Five-sixths is approximately equal to zero point eight.

$$\frac{5}{6} \approx 0.8$$

19. a open parenthesis one minus b squared close parenthesis

$$a(1 - b^2)$$

Figure 1 displays 30 small plots arranged in a 3x10 grid. Each plot shows a different spatial pattern of black dots on a white background. The patterns vary in density, clustering, and distribution across the plots.

20. Nine-tenths plus three-fifths equals one and one-half.

$$\frac{9}{10} + \frac{3}{5} = 1\frac{1}{2}$$