

Mathematics

Section 1: Algebra

1. Simplify: $2x + 3x - 5x$	2. Solve for x : $4x - 7 = 15$
3. Factor: $x^2 - 9$	4. Expand: $(x + 3)^2$
5. Simplify: $\frac{6x^2}{3x}$	6. Solve for x : $x^2 + 5x + 6 = 0$
7. Find the slope of the line passing through $(1, 2)$ and $(3, 4)$	8. Write the equation of the line with slope $m = -2$ and y-intercept $b = 3$

9. Simplify: $5x - 2x + 8x$	10. Solve for x : $3x + 1 = 10$
11. Factor: $x^2 - 16$	12. Expand: $(x - 4)^2$
13. Simplify: $\frac{8x^3}{4x^2}$	14. Solve for x : $x^2 - 8x + 12 = 0$
15. Find the slope of the line passing through $(2, 5)$ and $(4, 1)$	16. Write the equation of the line with slope $m = 1$ and y-intercept $b = -2$

Section 2: Geometry

1. Find the area of a rectangle with length 8 and width 5 .	2. Find the perimeter of a square with side length 6 .
3. Find the area of a triangle with base 10 and height 4 .	4. Find the circumference of a circle with radius 3 .
5. Find the area of a circle with radius 5 .	6. Find the perimeter of a rectangle with length 12 and width 7 .
7. Find the area of a trapezoid with parallel bases 8 and 12 , and height 5 .	8. Find the area of a parallelogram with base 9 and height 6 .

9. Find the area of a square with side length 7 .	10. Find the perimeter of a circle with diameter 10 .
11. Find the area of a triangle with base 6 and height 3 .	12. Find the area of a circle with diameter 8 .
13. Find the perimeter of a square with side length 4 .	14. Find the area of a rectangle with length 15 and width 9 .
15. Find the area of a trapezoid with parallel bases 5 and 10 , and height 4 .	16. Find the area of a parallelogram with base 7 and height 5 .