Grade 7

1. Simplify the expression: $(a - b)(a + b) + b^2$ (Options: $a^2 + 2b^2$, a^2, $a^2 - 2b^2$)
2. The graphs $y = 2x + 5$ and $y = 11 - x$ intersect. Find 'x' at the intersection point. (Options: 1, 2, 3)
3. Factorize: $x^2 - 5x + 6$ (Options: $(x-2)(x-3)$, $(x-1)(x-6)$, $(x+2)(x+3)$)
4. In an isosceles triangle, the vertex angle is 40°. What is the base angle? (Options: 40°, 50°, 70°)
5. The median drawn to the hypotenuse of a right-angled triangle is equal to... (Options: ...half the hypotenuse, ...half the leg, ...the altitude)
6. What is $4^{-1} + 2^{-1}$? (Options: 6^{-1} (1/6), 3/4, 1/8)
7. Find the value of $(x + y)^2$, if $x^2 + y^2 = 10$ and $xy = 3$. (Options: 13, 16, 19)
8. The sum of two numbers is 10, their product is 21. Find these numbers. (Options: 5 and 5, 6 and 4, 3 and 7)
9. Solve the inequality: $3x - 1 > 8$ (Options: $x < 3$, $x > 3$, $x = 3$)