Question Paper

Topic 1: Algebra

Q1. If Sara bought x number of apples for $2 each and y number of bananas for $1 each, which algebraic expression represents the total amount she spent?

$2x + y$

$2x + 2y$

$x + y$

$x + 2y$

Answer: $2x + y$

Explanation: The cost of x apples at $2 each is 2x, and the cost of y bananas at $1 each is y. Therefore, the total amount spent is $2x + y$.

Q2. A carpenter charges $30 for the first hour of work and $20 for each additional hour. Which algebraic expression represents the total cost of hiring the carpenter for x hours?

$30 + 20x$

$20 + 30x$

$30x + 20$

$20x + 30$

Answer: $30 + 20x$

Explanation: The total cost includes the initial $30 for the first hour and $20 for each additional hour (x-1 hours). Therefore, the total cost is $30 + 20(x-1) = 30 + 20x$.