

APPLIED PROBLEM

1. **Problem:** A rectangular prism is shown. The length is 10 units, the width is 5 units, and the height is 3 units. Calculate the surface area of the prism.



2. **Solution:** The surface area of a rectangular prism is calculated using the formula $SA = 2lw + 2lh + 2wh$, where l is the length, w is the width, and h is the height. Substituting the given values: $SA = 2(10)(5) + 2(10)(3) + 2(5)(3) = 100 + 60 + 30 = 190$. The surface area of the prism is 190 square units.

3. **Problem:** A rectangular prism is shown. The length is 8 units, the width is 4 units, and the height is 6 units. Calculate the surface area of the prism.



4. **Solution:** The surface area of a rectangular prism is calculated using the formula $SA = 2lw + 2lh + 2wh$, where l is the length, w is the width, and h is the height. Substituting the given values: $SA = 2(8)(4) + 2(8)(6) + 2(4)(6) = 64 + 96 + 48 = 208$. The surface area of the prism is 208 square units.