On an airplane, the ratio of men to women is 7:5. The ratio of women to children is 4:3.

Jack says more than half the passengers are men. Is he correct?

Find \( y \)

\[
\frac{x^2 - 4x - 12}{x^2 - x - 30}
\]

Simplify fully

\[ \sqrt{3} \times \sqrt{3} \times \sqrt{2} \times \sqrt{2} \]

A shop sells two different sizes of rugby ball.

A small rugby ball has a length of 8cm and surface area of 90 cm²

A large rugby ball has a length of 16cm. Calculate the surface area of a large rugby ball.