

Height Calculation of a Pile of Paper

Problem Statement

Given that the height of a pile of 500 sheets of paper is 4.5 cm, calculate the height of a pile of 79 million sheets of paper.

Solution

Let h be the height of 79 million sheets of paper. We can set up a proportion based on the given data:

$$\frac{4.5 \text{ cm}}{500 \text{ sheets}} = \frac{h \text{ cm}}{79,000,000 \text{ sheets}}$$

Solving for h :

$$h = \frac{4.5 \text{ cm} \times 79,000,000 \text{ sheets}}{500 \text{ sheets}}$$

$$h = \frac{4.5 \times 79,000,000}{500}$$

$$h = \frac{355,500,000}{500}$$

$$h = 711,000 \text{ cm}$$

Conclusion

The height of a pile of 79 million sheets of paper is 711,000 cm, or 7,110 meters.