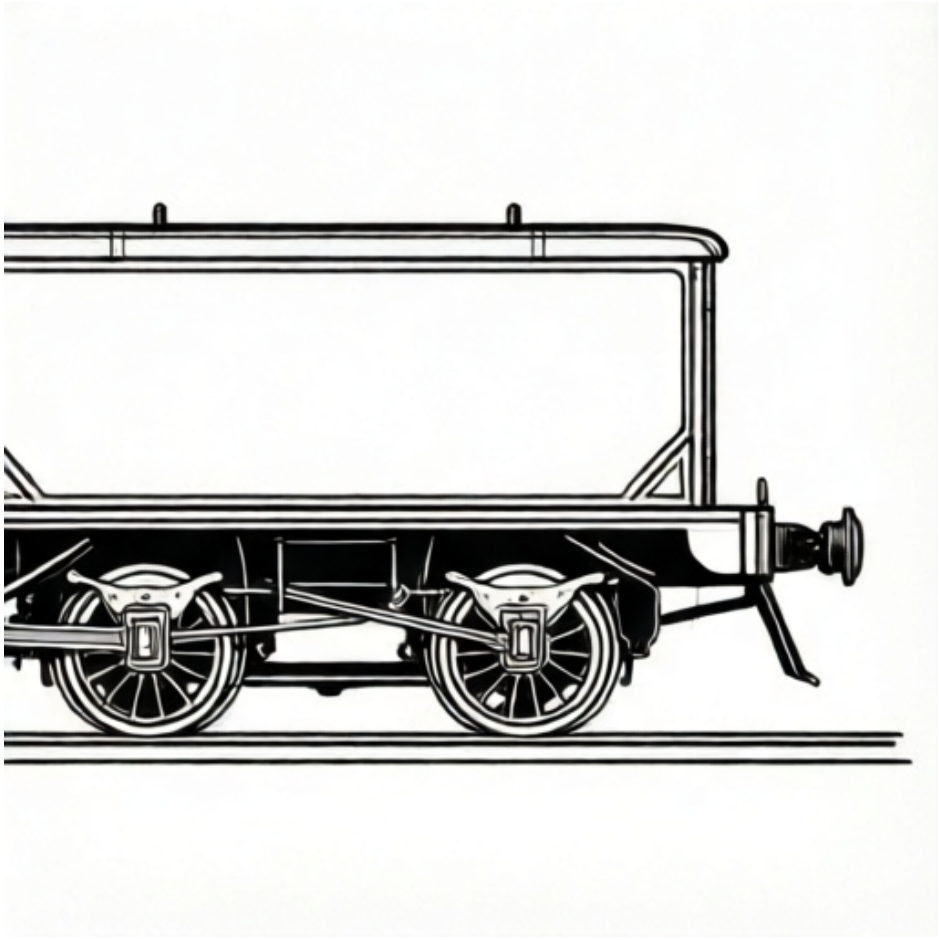
Train Side View Drawing: Wheels, Cars, and Proportions

Topic reference / ordinary illustration



Ordinary topic reference. Hypothetical dimensions in the four tasks are supplied in their own text; this illustration is not their measured answer.

Train Side View Drawing: Wheels, Cars, and Proportions

Worked example / complete source key

A train has two cars. Each car has two wheels of diameter 2 cm. Wheel centers are spaced 3 cm apart within a car, and the gap between cars is 1 cm. Body height is two wheel diameters. Find the total length of the train from the left edge of the first car to the right edge of the second car, assuming each car length equals the wheel spacing plus one wheel diameter.

Answer: Car length = 3 cm + 2 cm = 5 cm. Two cars = 10 cm. One gap = 1 cm. Total length = 11 cm.

Reason: Each car length is defined as wheel spacing plus one wheel diameter, giving 5 cm. Two cars contribute 10 cm. The single gap between them adds 1 cm. Sum is 11 cm.

Check: Re-measure: wheel spacing 3 cm, wheel diameter 2 cm, car length 5 cm. Two cars 10 cm plus gap 1 cm equals 11 cm. Compare with a ruler on the drawing.