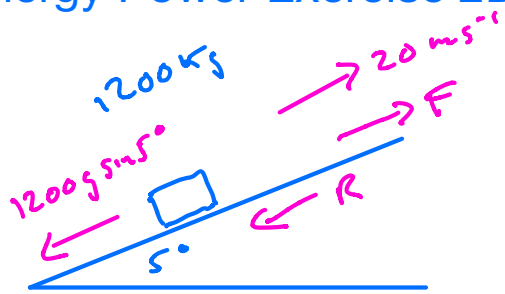


Work Energy Power Exercise 2D

Q11



$$\text{Power} = 24000 \text{ W}$$

$$\text{Power} = Fv$$

$$24000 = F \times 20$$

$$\frac{24000}{20} = F$$

$$F = 1200 \text{ N}$$

a)

Constant speed \therefore 0 resultant

$$1200g \sin 5^\circ + R = 1200$$

$$R = 1200 - 1200 \times 9.8 \sin 5^\circ$$

$$R = 175.048$$

$$R = 175 \text{ N}$$

b) NZL $F - R = 1200a$

$$1200 - 175 = 1200a$$

$$a = \frac{1025}{1200} = 0.854 \text{ m s}^{-2}$$

Classwork and Homework

Exercise 2D Q13, Q15, Q16, Q17
