

4. k. F

1.

$$m = 36t = 36000 \text{ kg} \rightarrow F = 360000$$

$$S = 4,5 \text{ m}^2$$

$$p = ?$$

$$p = \frac{F}{S} = \frac{360000}{4,5} = 80000 \text{ Pa} = \underline{\underline{80 \text{ kPa}}}$$

$$2. p = 15 \text{ kPa} = 15000 \text{ Pa}$$

$$S = 0,015 \text{ m}^2$$

$$m = ?$$

$$F = p \cdot S = 15000 \cdot 0,015 = 225 \text{ N}$$

$$m = 225 : 10 = \underline{\underline{22,5 \text{ kg}}}$$

$$3. a = 35 \text{ mm} \Rightarrow S = 35 \cdot 35 = 1225 \text{ mm}^2 = 0,001225 \text{ m}^2$$

$$F = 12000 \text{ N}$$

$$p = ?$$

$$p = \frac{F}{S} = \frac{12000}{0,001225} = 9795918 \text{ Pa} = \underline{\underline{10 \text{ MPa}}}$$