PC Sec 2-7 p. 129. (1-9)

① C ② A

③ $y = \frac{k}{x}$

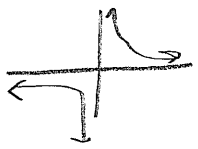
a) $10(45) = \left(\frac{k}{10}\right)10$

$\boxed{k = 450}$

b) $y = \frac{450}{2}$

$\boxed{y = 225}$

④ a) $y = \frac{240}{x}$

b) 

c) $y = 0$
As people ↑, # of hot dogs each gets is closer to zero.

⑤ inverse square variation

⑥ $F = \frac{k}{d^2}$

$12 = \frac{k}{(0.4)^2}$ $k = 1.92$

$F = \frac{1.92}{d^2}$

$F = \frac{1.92}{(0.2)^2}$

$\boxed{F = 48\ N}$

⑦ a) $P = \frac{k}{V}$ $117.5 = \frac{k}{240}$ $\boxed{k = 28{,}704\ kPa \cdot mL}$

b) $\boxed{P = \frac{28704}{V}}$ c) on calc

d) L3 = 28704/L1 → Pred.
L4 = L2 − L3
obs − Pred

1-Var Stat L4 → $\boxed{\Sigma x^2 = 77.52}$

⑧ True, as speed ↑, time ↓