

1.1 1 mikroårhundre (uten skuddår)

$$= 100 \cdot 365 \cdot 24 \cdot 60 \cdot 10^{-6} \text{ minutter}$$

$$= 52,56 \text{ min} = \underline{52,6 \text{ min}}$$

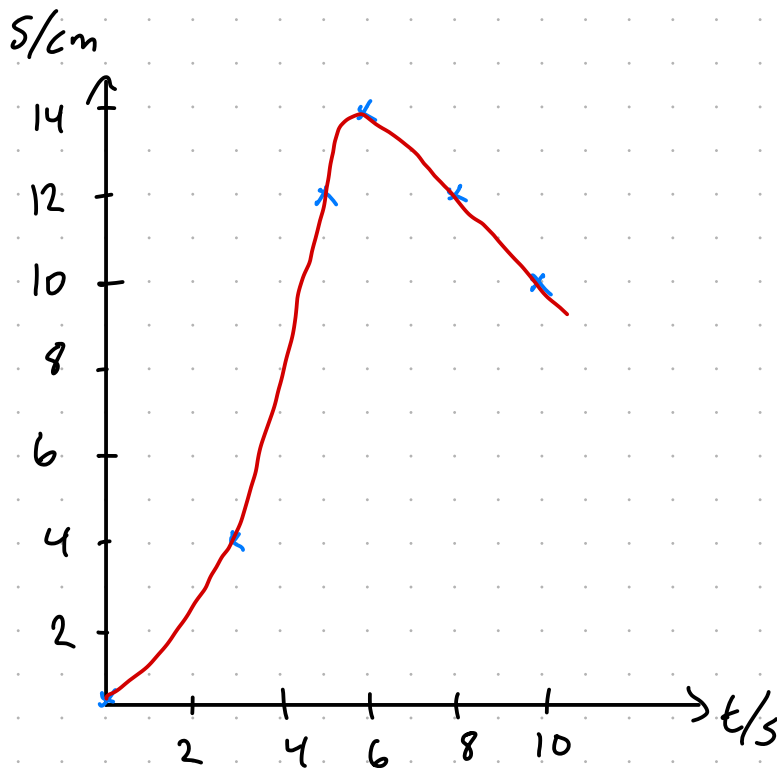
(med skuddår)

$$= 100 \cdot 365,25 \cdot 24 \cdot 60 \cdot 10^{-6} \text{ minutter}$$

$$= 52,596 \text{ min} = \underline{52,6 \text{ min}}$$

1.2

a)



b)

$$s[0, 3s] = s(3s) - s(0s) = 4 \text{ cm} - 0 \text{ cm} = \underline{4 \text{ cm}}$$

$$s[3s, 5s] = s(5s) - s(3s) = 12 \text{ cm} - 4 \text{ cm} = \underline{8 \text{ cm}}$$

$$s[5s, 8s] = 12 \text{ cm} - 12 \text{ cm} = \underline{0 \text{ cm}}$$

$$s[8s, 10s] = 10 \text{ cm} - 12 \text{ cm} = \underline{-2 \text{ cm}}$$

c) I løbet af de første 6 sekunder har mauren bevæget sig 14 cm fremover.

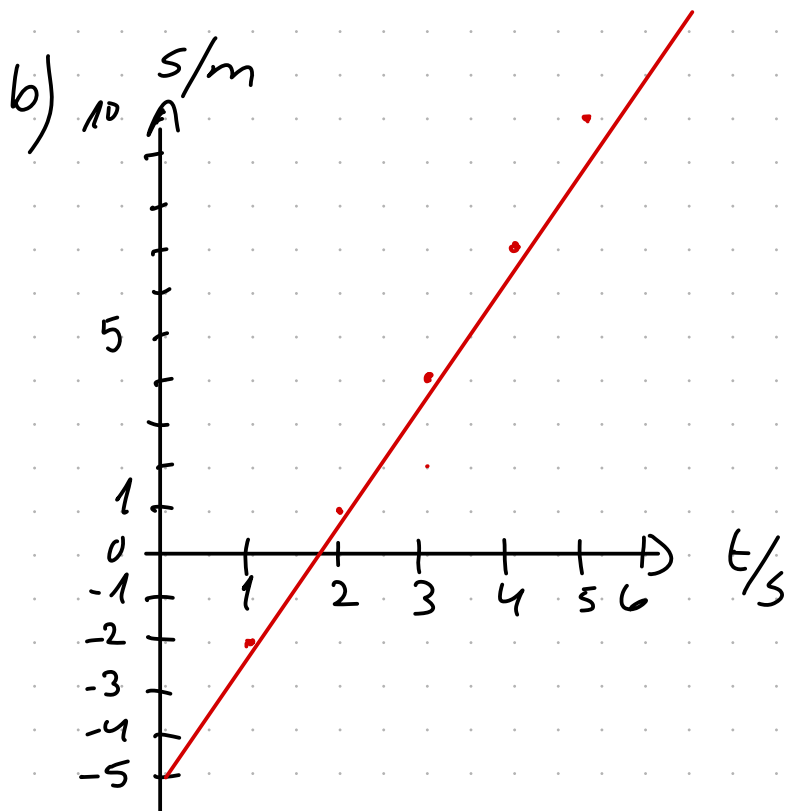
I løbet af de næste 4 sek har mauren bevæget sig 4 cm bakover.

Total bevægelse er 18 cm.

1.3

a) $s(t) = s_0 + vt$

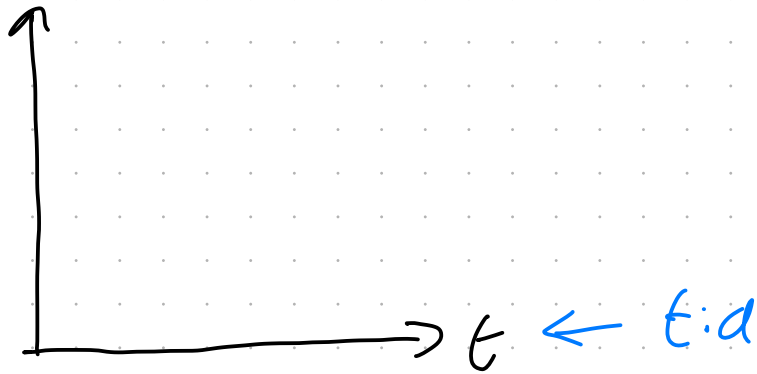
$$s(t) = -5,0 \text{ m} + 3 \frac{\text{m}}{\text{s}} \cdot t$$



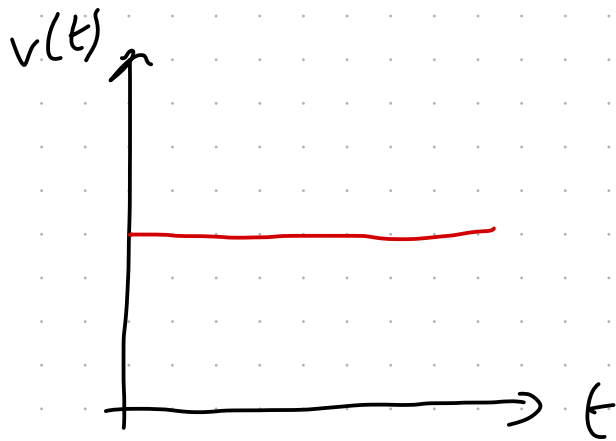
c) $\underline{s(4,0 \text{ s})} = -5,0 \text{ m} + 3,0 \frac{\text{m}}{\text{s}} \cdot 4,0 \text{ s} = \underline{7,0 \text{ m}}$

1.4

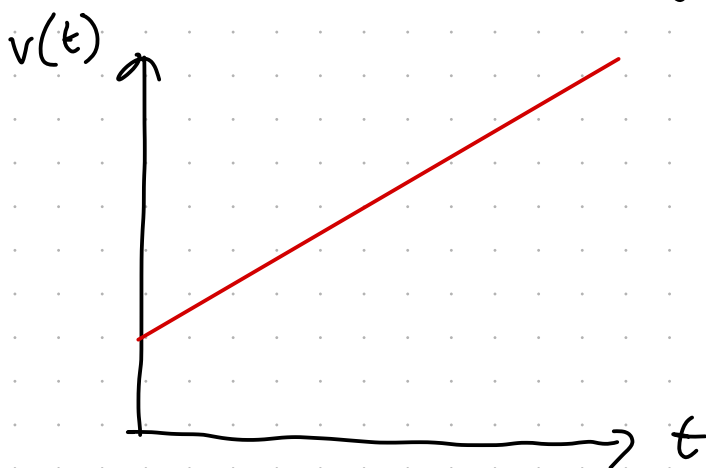
FARTSGRAF

 $v(t)$ ← fart

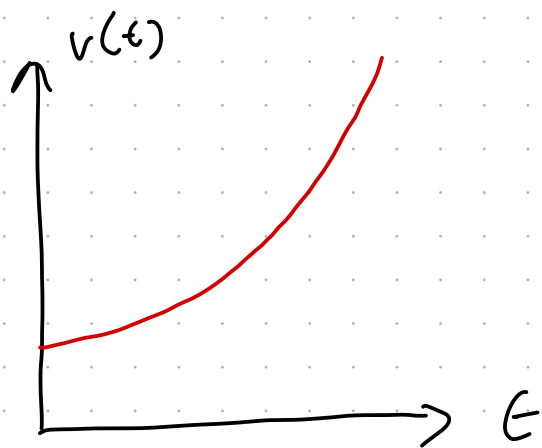
a) Konstante fart



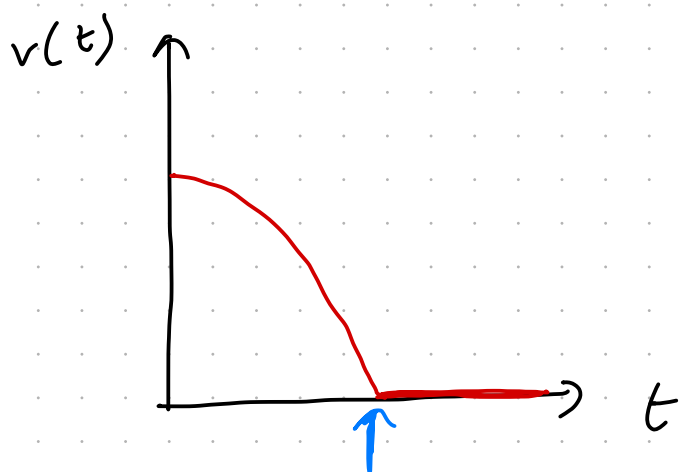
b) Konstant akselerasjon



c) Akselerasjonen øker

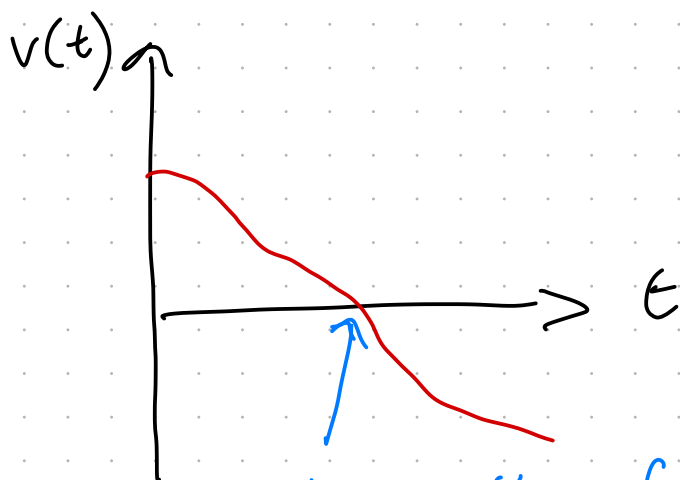


d) Bevegelsen stanser



Her stanser bevegelsen

e) Farten skifter retning



Her skifter farten retning