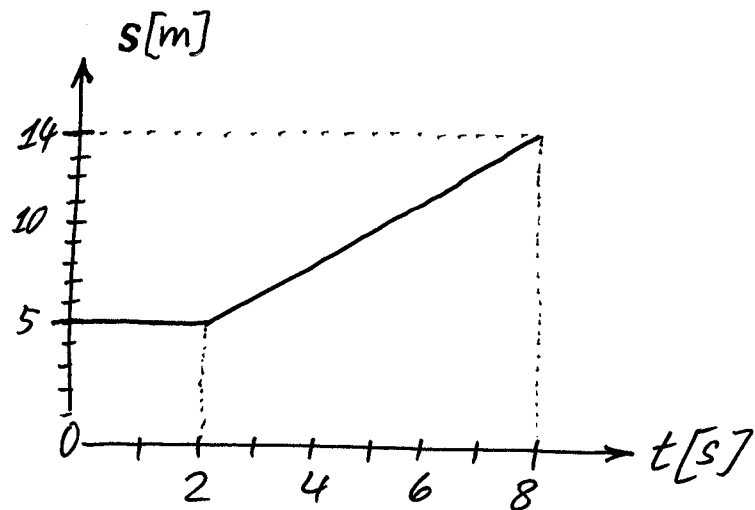


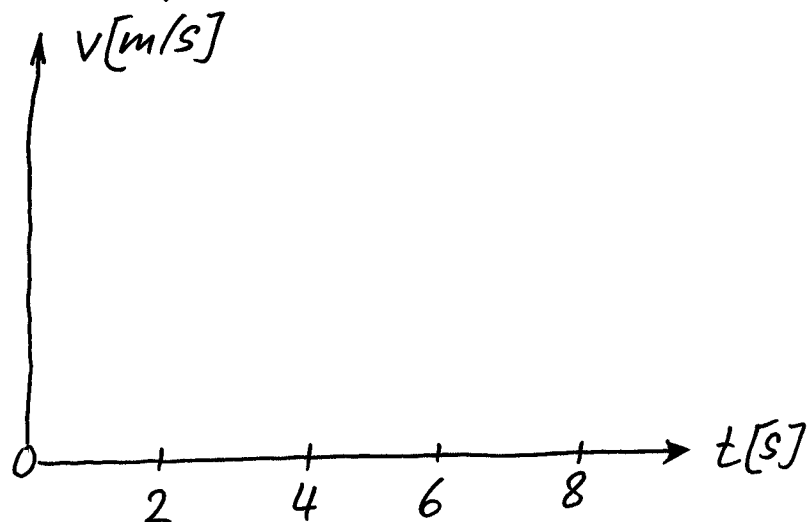
Bewegungsdiagramme

s-t-Diagramme

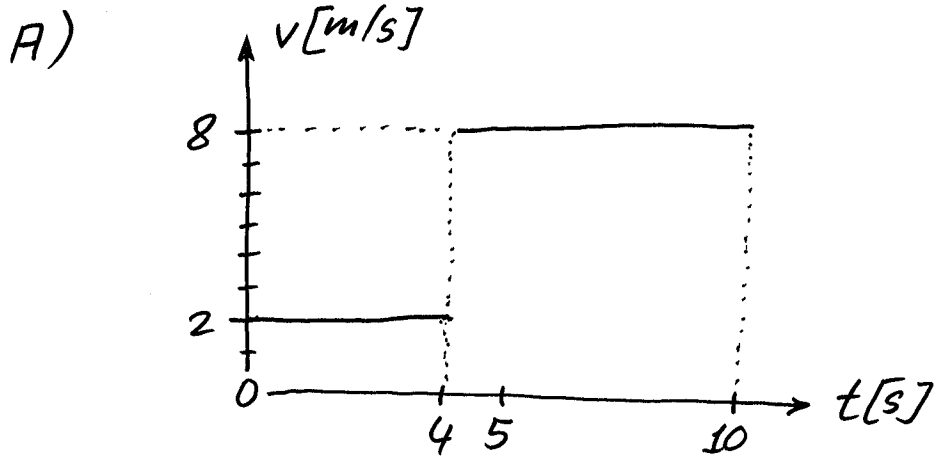


Zeitintervall	Δs [m]	Δt [s]	\bar{v} [m/s]
$0 \leq t \leq 2s$			
$2s < t \leq 8s$			
$0 \leq t \leq 8s$			

Erstelle ein v-t-Diagramm

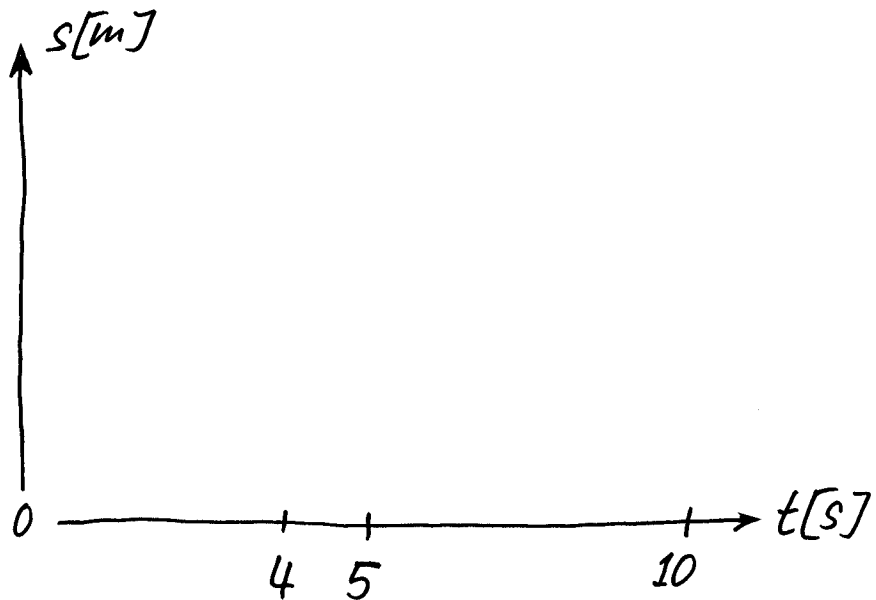


v-t-Diagramme



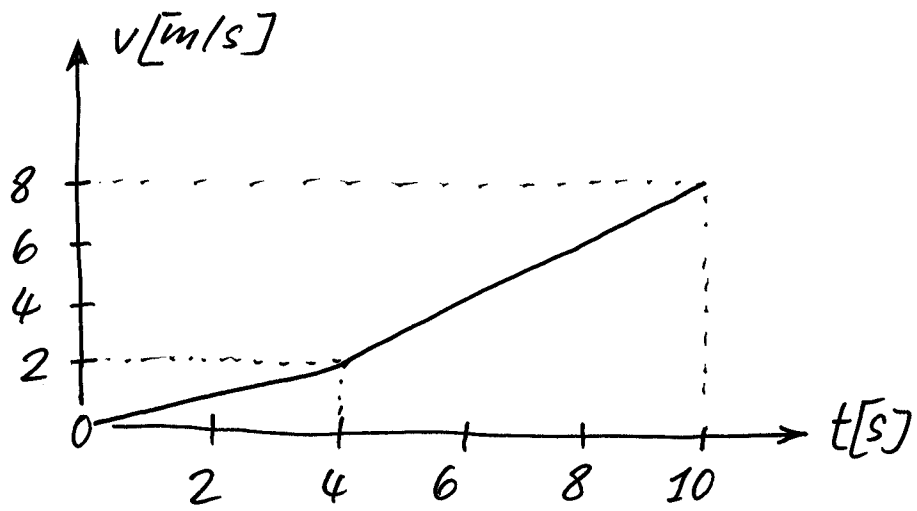
Zeitintervall	\bar{v} [m/s]	Δt [s]	Δs [m]
$0 \leq t < 4s$			
$4s \leq t \leq 10s$			
$0 \leq t \leq 10s$			

Erstelle ein s-t-Diagramm



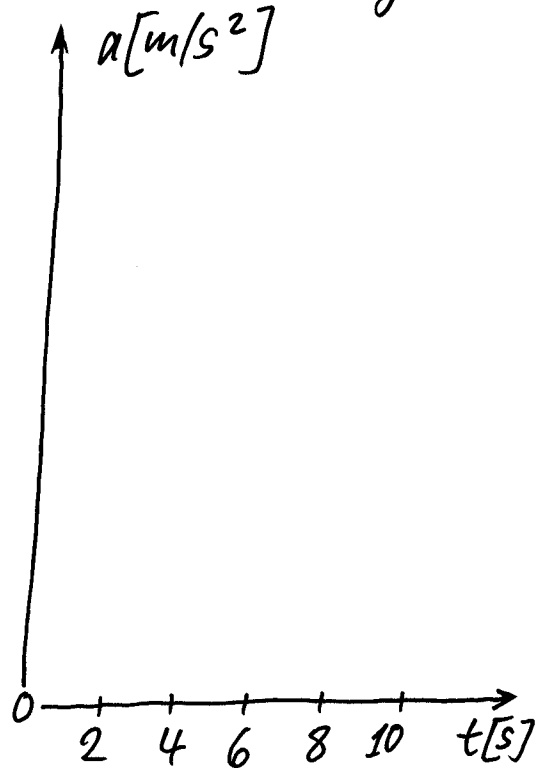
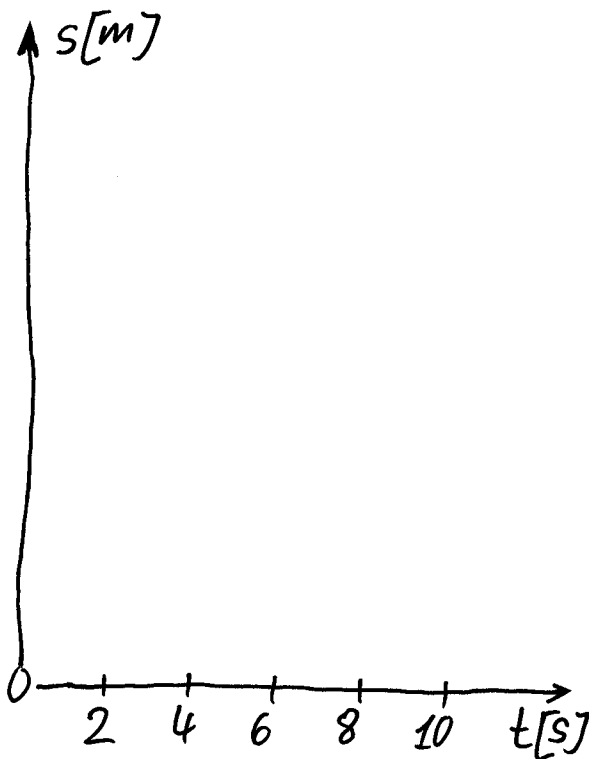
Wähle $s(0) = 0$

B)



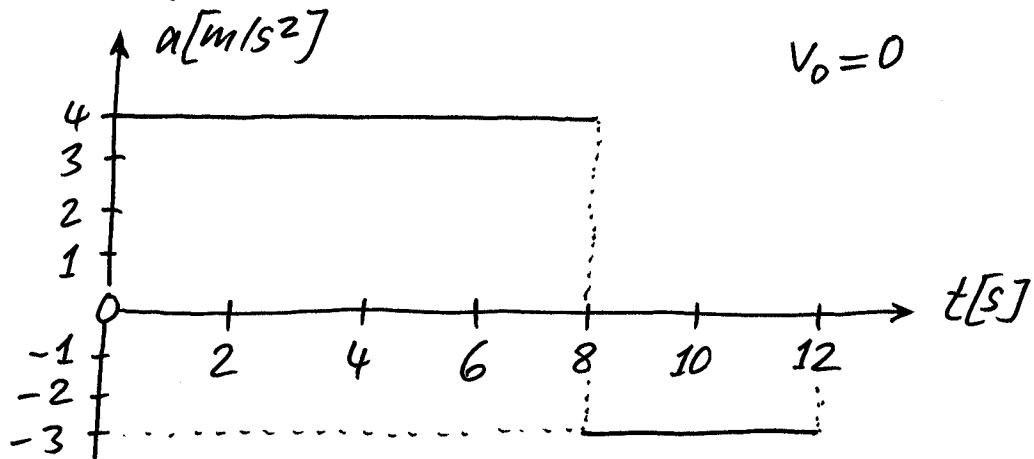
Zeitintervall	\bar{v} [m/s]	Δt [s]	Δs [m]	a [m/s ²]
$0 \leq t < 4s$				
$4s \leq t \leq 10s$				
$0 \leq t \leq 10s$				-----

Erstelle ein s - t -Diagramm und ein a - t -Diagramm



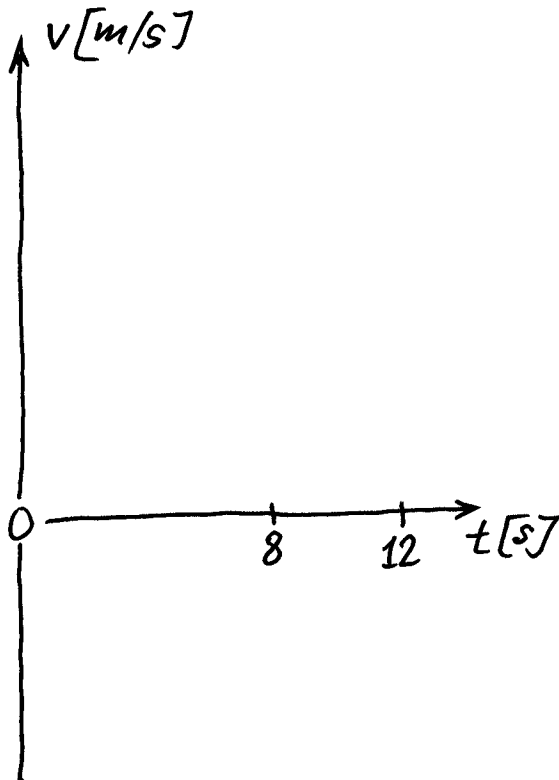
Wähle $s(0) = 0$

a-t-Diagramme

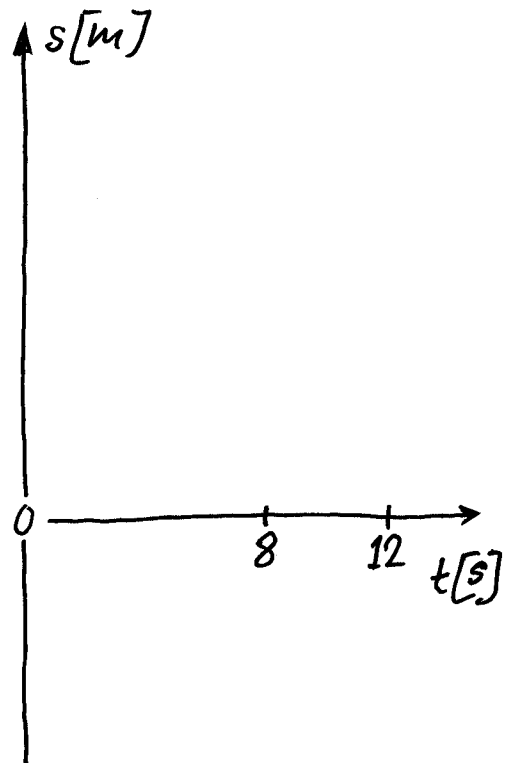


Zeitintervall	Δt [s]	a [m/s ²]	\bar{v} [m/s]	Δs [m]
$0 \leq t < 8s$				
$8s \leq t \leq 12s$				
$0 \leq t \leq 12s$		-----		

Erstelle ein v-t- und ein s-t-Diagramm



Es sei $v(0) = 0$

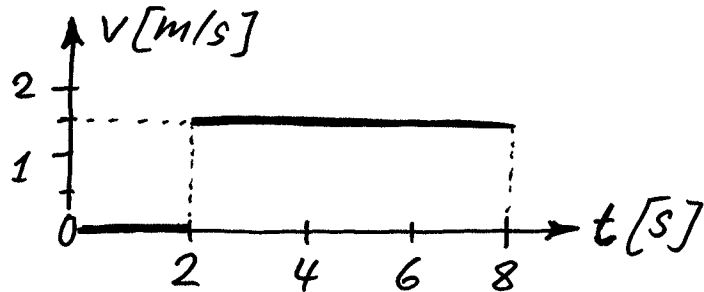


Wähle $s(0) = 0$

Musterlösungen

s-t-Diagramme:

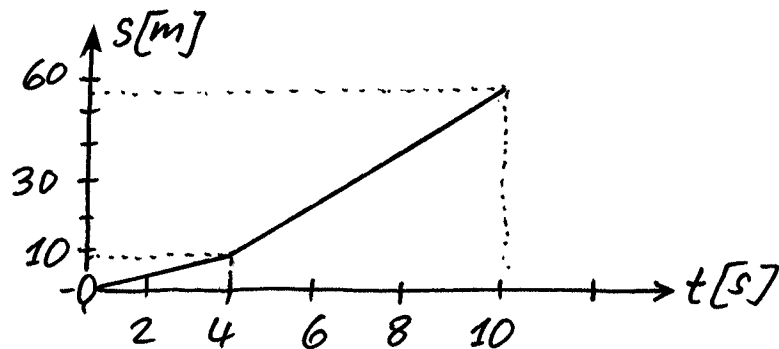
Zeitintervall	Δs [m]	Δt [s]	\bar{v} [m/s]
$0 \leq t \leq 2s$	0	2	0
$2s \leq t \leq 8s$	9	6	1.5
$0 \leq t \leq 8s$	9	8	1.125



v-t-Diagramm:

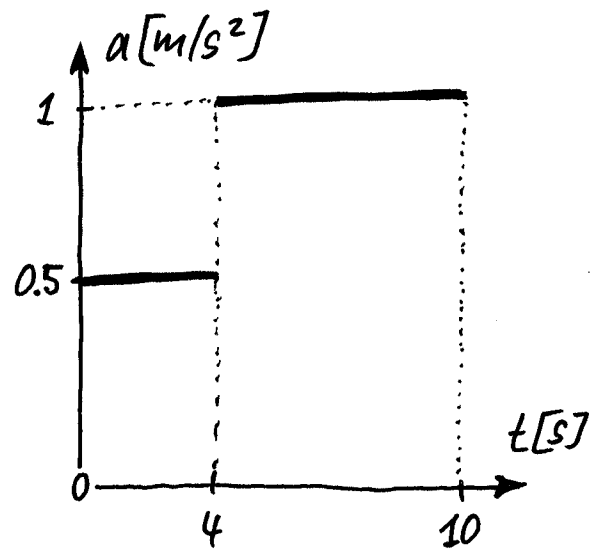
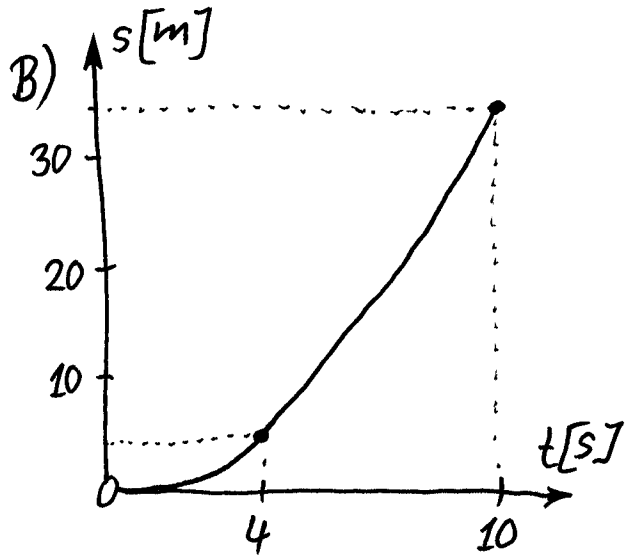
A)

Zeitintervall	\bar{v} [m/s]	Δt [s]	Δs [m]
$0 \leq t < 4s$	2	4	8
$4s \leq t \leq 10s$	8	6	48
$0 \leq t \leq 10s$	5.6	10	56



B)

Zeitintervall	\bar{v} [m/s]	Δt [s]	Δs [m]	a [m/s ²]
$0 \leq t \leq 4s$	1	4	4	0.5
$4s \leq t \leq 10s$	5	6	30	1
$0 \leq t \leq 10s$	3.4	10	34



a-t-Diagramme:

Zeitintervall	Δt [s]	a [m/s ²]	\bar{v} [m/s]	Δs [m]
$0 \leq t < 8$ s	8	4	16	128
$8 \text{ s} \leq t \leq 12$ s	4	-3	26	104
$0 \leq t \leq 12$ s	12	19.33	232

