

"GRUPA C" - rješenja

8. a) $5 \frac{m}{s} = 5 \cdot 3,6 = 18 \frac{km}{h}$ (b) $18 \frac{km}{h} = 18 : 3,6 = 5 \frac{m}{s}$

9. $t = 5s$
 $s = 160m$

 $v = \frac{s}{t}$
 $v = \frac{160m}{5s}$
 $v = 32 \frac{m}{s}$

10. $s = 30m$
 $t = 6s$

 $v = \frac{s}{t}$
 $v = \frac{30m}{6s}$
 $v = 5 \frac{m}{s}$

11. $s = 6cm = 0,06m$
 $t = 1min = 60s$

 $v = \frac{s}{t}$
 $v = \frac{0,06m}{60s}$
 $v = 0,001 \frac{m}{s}$

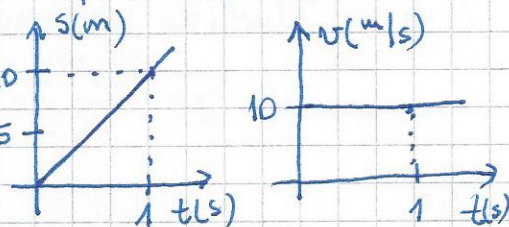
12. $v = 16 \frac{km}{h}$
 $s = 48km$

 $t = \frac{s}{v}$
 $t = \frac{48km}{16 \frac{km}{h}}$
 $t = 3h$

13. $t = 5s$
 $v = 340 \frac{m}{s}$

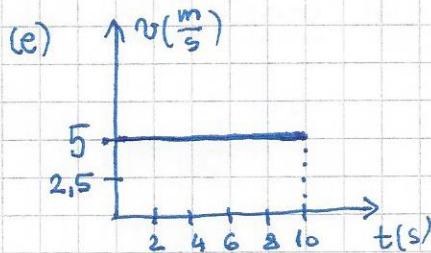
 $s = v \cdot t$
 $s = 340 \frac{m}{s} \cdot 5s$
 $s = 1700m$

14. $v = 10 \frac{m}{s}$
 U 1s tijelo prijeđe put od 10m.



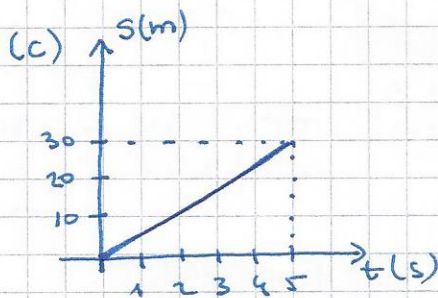
15. (a) jednoliko
 (b) $s = 50m$
 (c) $t = 10s$

(d) $v = \frac{s}{t} = \frac{50m}{10s} = 5 \frac{m}{s}$



16. (a) jednoliko
 (b) $v = 6 \frac{m}{s}$
 $t = 5s$

 $s = v \cdot t$
 $s = 6 \frac{m}{s} \cdot 5s$
 $s = 30m$



17. $t = 8s$
 $v = 10m/s$

 $a = \frac{v}{t}$
 $a = \frac{10 \frac{m}{s}}{8s}$
 $a = 1,25 \frac{m}{s^2}$

18. $v_{poč} = 5 \frac{m}{s}$
 $v_{kon} = 20 \frac{m}{s}$
 $\Delta t = 5s$

 $a = \frac{\Delta v}{\Delta t} = \frac{15 \frac{m}{s}}{5s} = 3 \frac{m}{s^2}$

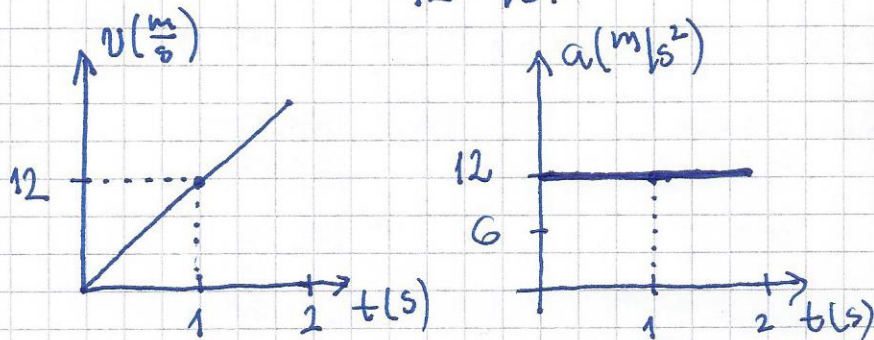
19. $a = 3 \frac{m}{s^2}$
 $t = 2s$

 $v = a \cdot t$
 $v = 3 \frac{m}{s^2} \cdot 2s$
 $v = 6 \frac{m}{s}$

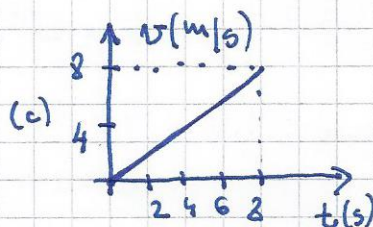
20. $a = 2 \frac{m}{s^2}$
 $v = 10 \frac{m}{s}$
 $t = ?$

 $t = \frac{v}{a}$
 $t = \frac{10 \frac{m}{s}}{2 \frac{m}{s^2}}$
 $t = 5s$

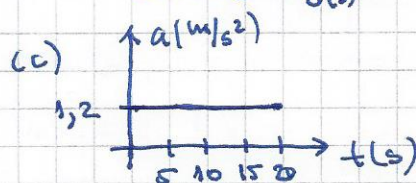
21. $a = 12 \frac{m}{s^2} \Rightarrow$ U 1s brz. naraste za $12 \frac{m}{s}$.



22. (a) jednoliko ubrzano
 (b) $v = a \cdot t = 1 \frac{m}{s^2} \cdot 8s = 8 \frac{m}{s}$

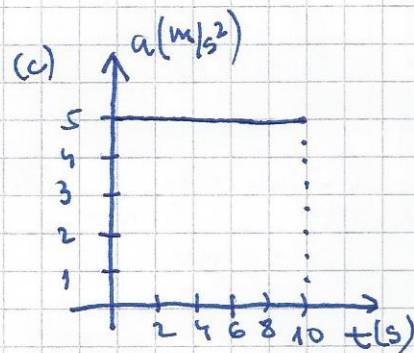
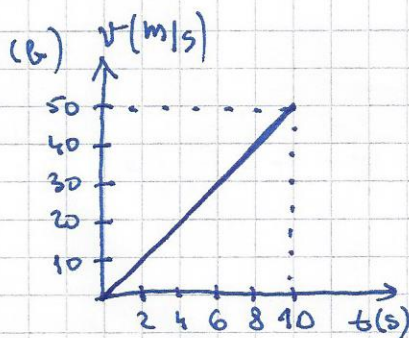


23. (a) jednoliko ubrzano
 (b) $a = \frac{v}{t} = \frac{24 \frac{m}{s}}{20s} = 1,2 \frac{m}{s^2}$



24. $t = 10s$
 (a) $v = 50 \frac{m}{s}$

 $a = \frac{v}{t}$
 $a = \frac{50 \frac{m}{s}}{10s}$
 $a = 5 \frac{m}{s^2}$



25. $m = 8kg$
 $a = 2 \frac{m}{s^2}$

 $F = m \cdot a$
 $F = 8kg \cdot 2 \frac{m}{s^2}$
 $F = 16N$

26. $m = 250dag = 2,5kg$
 $a = 1,2 \frac{m}{s^2}$

 $F = m \cdot a$
 $F = 2,5kg \cdot 1,2 \frac{m}{s^2}$
 $F = 3N$

27. $m = 8kg$
 $F = 12N$

 $a = \frac{F}{m}$
 $a = \frac{12N}{8kg}$
 $a = 1,5 \frac{m}{s^2}$

28. $F = 6N$
 $a = 2 \frac{m}{s^2}$

 $m = \frac{F}{a}$
 $m = \frac{6N}{2 \frac{m}{s^2}}$
 $m = 3kg$