Oplossingen Mechanics 2013

TODO

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1 Part 1

1.1 K1

1.2 K2

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2 Part 2

2.1 K1

gegeven

$|v| = 900\frac{km}{h} = 250\frac{m}{s}$

gevraagd

$n : n \leq r$

berekeningen

We weten dat $a_n = \frac{v^2}{r}$ en $a_t = \frac{dv}{dt}$.

$$a_t = \frac{d(250)}{dt} = 0$$

$$a_n = \frac{|v|^2}{r} \leq 4g$$

$$\frac{|v|^2}{4g} \leq r$$

Antwoord

$$n = \frac{|v|^2}{4g} = \frac{250^2}{4 \cdot 10} = 1562.5m$$

2.2 K2
2.3 K3
2.4 B1
2.5 B2
2.6 B3
3 Part 3
3.1 K1
3.2 K2
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