

Hw 6,7 RB,7

Midterm 2 - CTF

$S_1 \rightarrow$ 1st chance - Sat - Wed
11-15th

~~(orig. 9th)~~

$S_2 \rightarrow$ 2nd chance - 19-22nd
Sun Wed

$\rightarrow$ sign up post on Piazza/email.

20 Qs - material: RBs (Hw 5,6,7)

- mixture of PL, new questions.

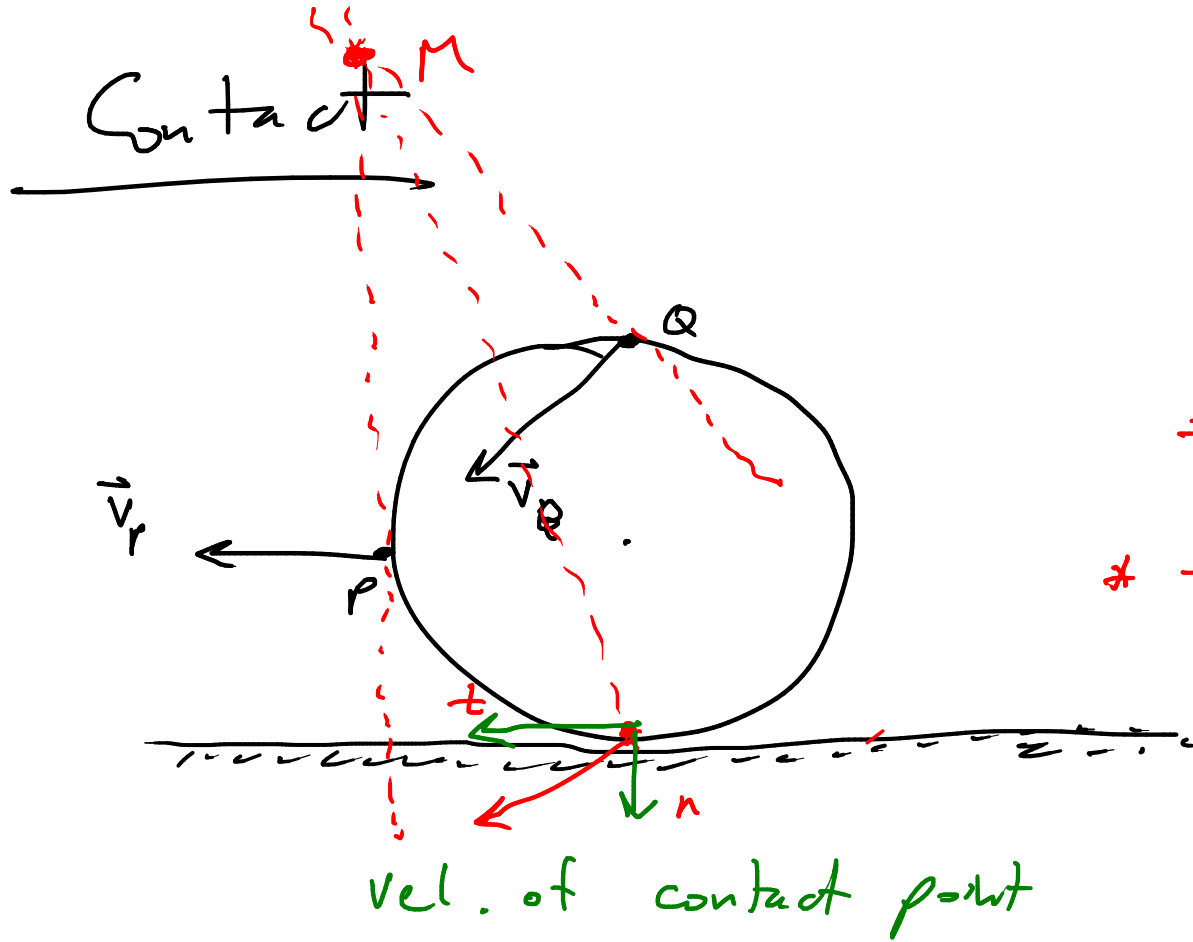
$$\text{Score} = \max\left(S_1, \frac{S_1 + S_2}{2}\right)$$

① only take 1st chance $\rightarrow S_1$

② take both $\rightarrow$ higher of S_1 , avg.

- Calculators allowed - no phones, laptops, tablets.
- same cheat sheet - 1 (2 sided)
 - keep all paper.
- scrap paper provided.
- no bags (lockers for DCL)

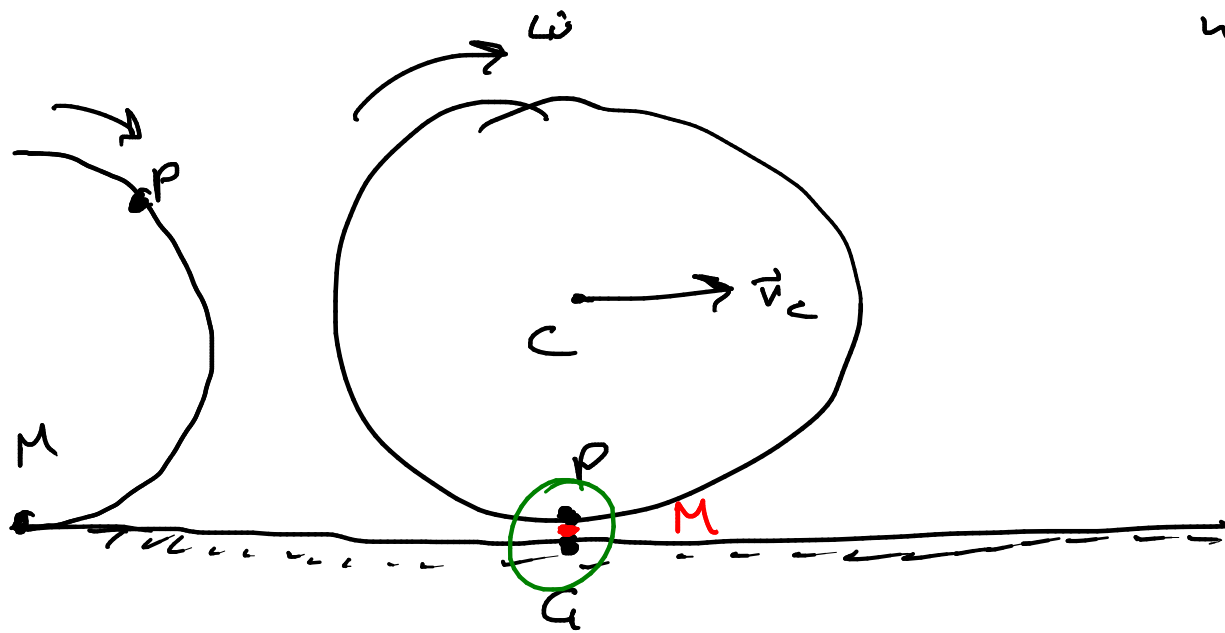
L 416 DCL



- A. rolling w/o slip
- ⇒ B. slipping in contact.
- * → C. losing contact.
- D. penetrating
- E. not a RB.

		tang vel	
	0		$\neq 0$
normal vel	0	A rolling w/o slip	B slip in contact
	$\neq 0$	C losing contact penetrating	D $\neq 0$
			} persistent contact } transient contact.

Rolling without slipping



when lined up
(at same place)

- A. $\vec{v}_P = \vec{v}_Q = \vec{v}_M$
- B. $\vec{v}_P = \vec{v}_Q \neq \vec{v}_M$
- C. $\vec{v}_Q = \vec{v}_M \neq \vec{v}_P$
- D. $\vec{v}_P = \vec{v}_M \neq \vec{v}_Q$
- E. all different.

P = point fixed to wheel, moves with wheel

Q = point fixed to ground.

M = point of contact. — always contact point.