Welcome to MAT137 - Calculus with proofs!

- Class begins 10 minutes after the hour
- Your instructor is Professor Jason Siefken
- Course website: https://q.utoronto.ca

- **Before next class:**
  - **Watch videos 1.1, 1.2, 1.3**
  - Download next class slides.
    No need to look at them.

How do students do in MAT137?

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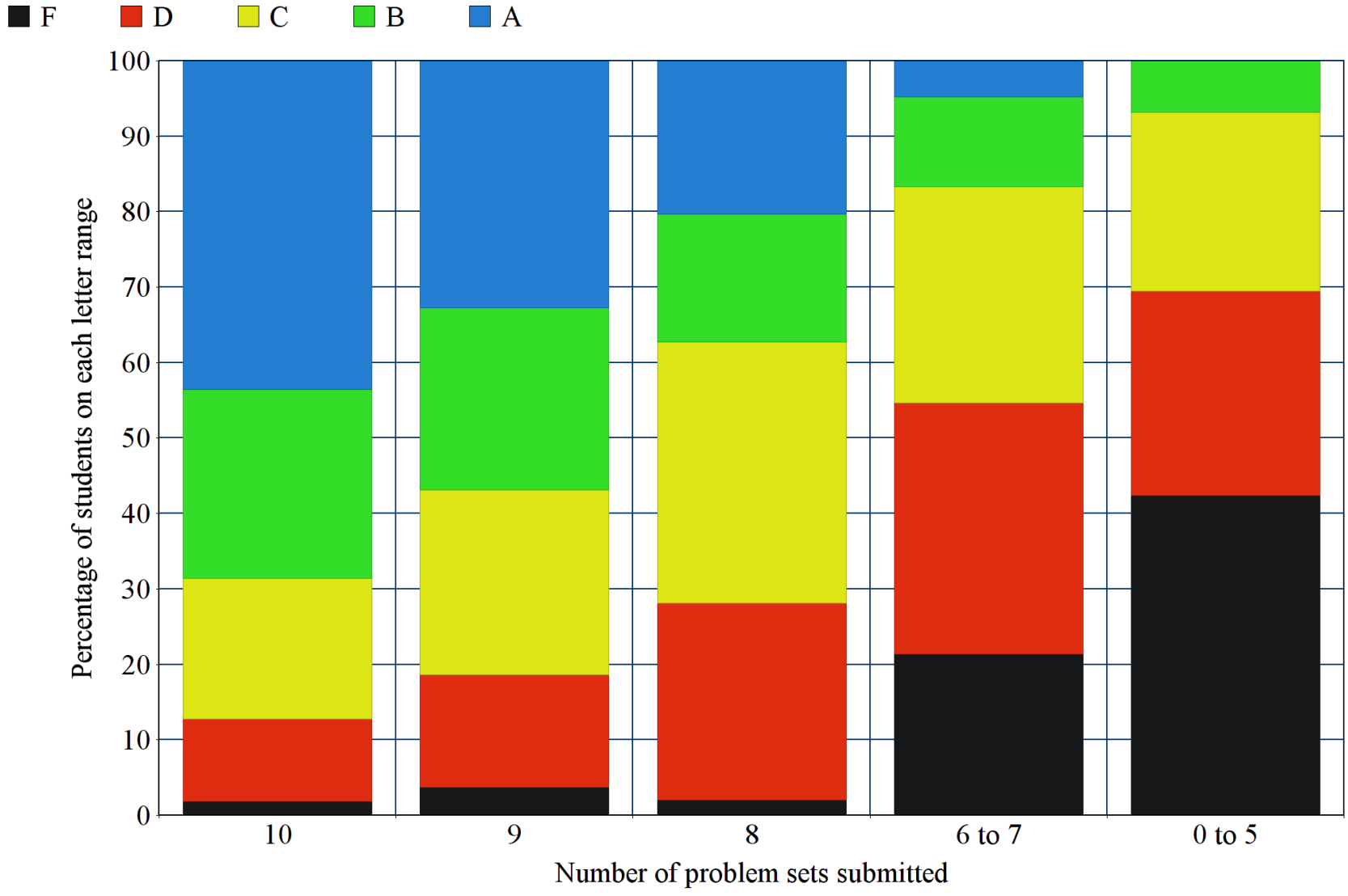
It depends on
how many problem sets they submit.

Performance in MAT137Y as a function of problem sets submitted (2018-2019)



Quick exercise

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Take 45 seconds to look over the following list of pairs of words,
but **do not write anything down**.

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but **do not write anything down**.

bread/b_tter	ocean/breeze
leaf/tree	music/l_rics
sweet/sour	sh_e/sock
phone/bo_k	movie/actress
chi_s/salsa	gasoline/engine
high school/college	pen_il/paper
river/b_at	turkey/stuffing
fruit/vegetable	be_r/wine
computer/chip	television/rad_o
l_nch/dinner	chair/couch

What do you remember?

What do you remember?

Write down as many pairs of words as you can.

You do *not* need to remember which letters were missing or which column they were in.

What did you remember?

What did you remember?

Mark each pair you remembered as “A” or “B”

A	B
ocean/breeze	bread/b_tter
leaf/tree	music/l_rics
sweet/sour	sh_e/sock
movie/actress	phone/bo_k
gasoline/engine	chi_s/salsa
high school/college	pen_il/paper
turkey/stuffing	river/b_at
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Table: Word list from The Talent Code (by Daniel Coyle).

A warm-up problem

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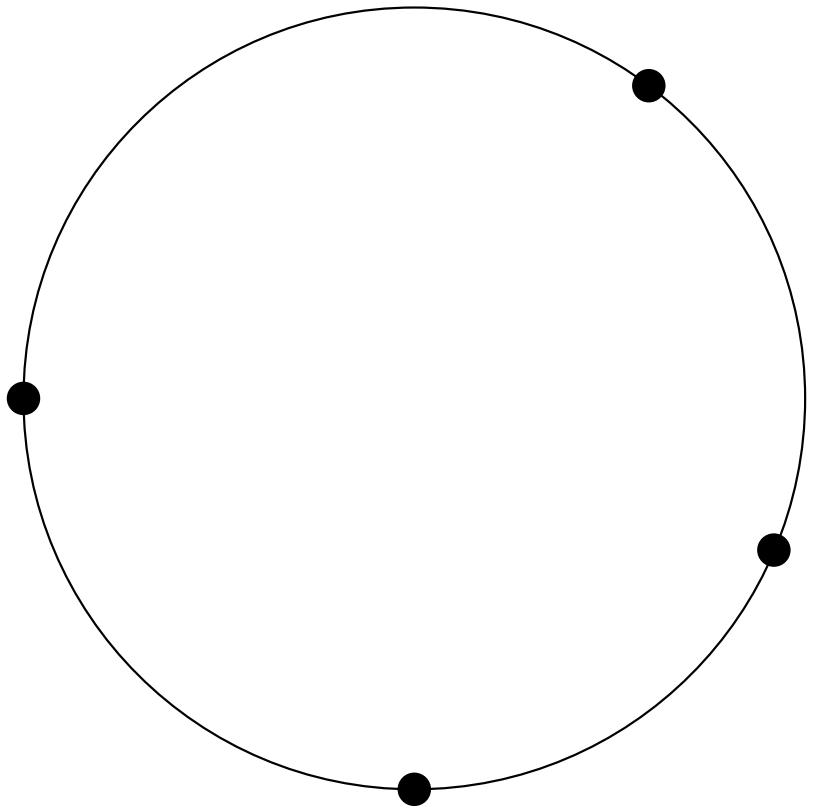
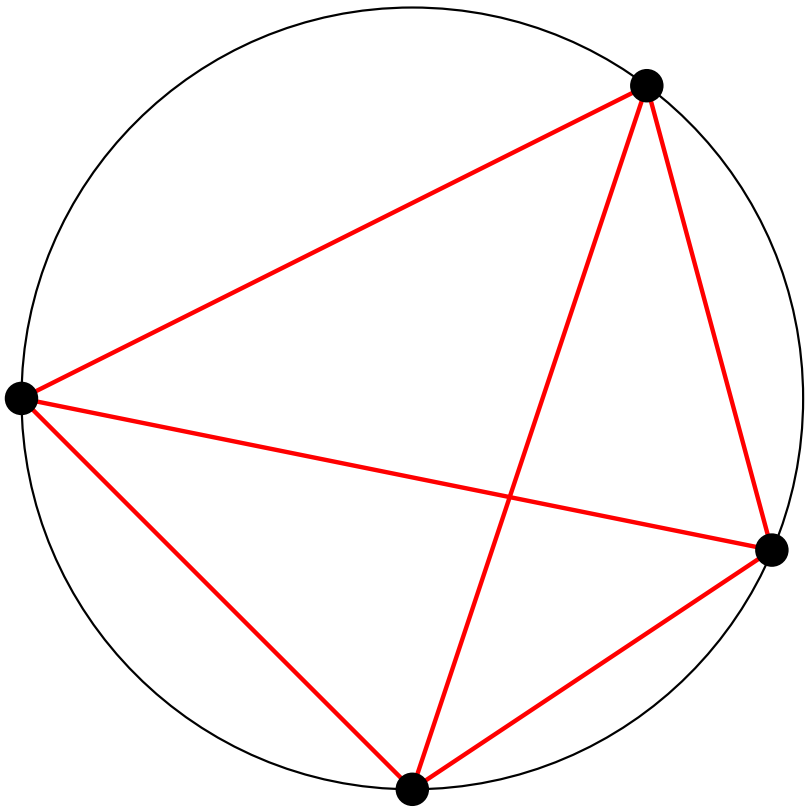
- Pick 4 points at random on a circle (without any symmetry).



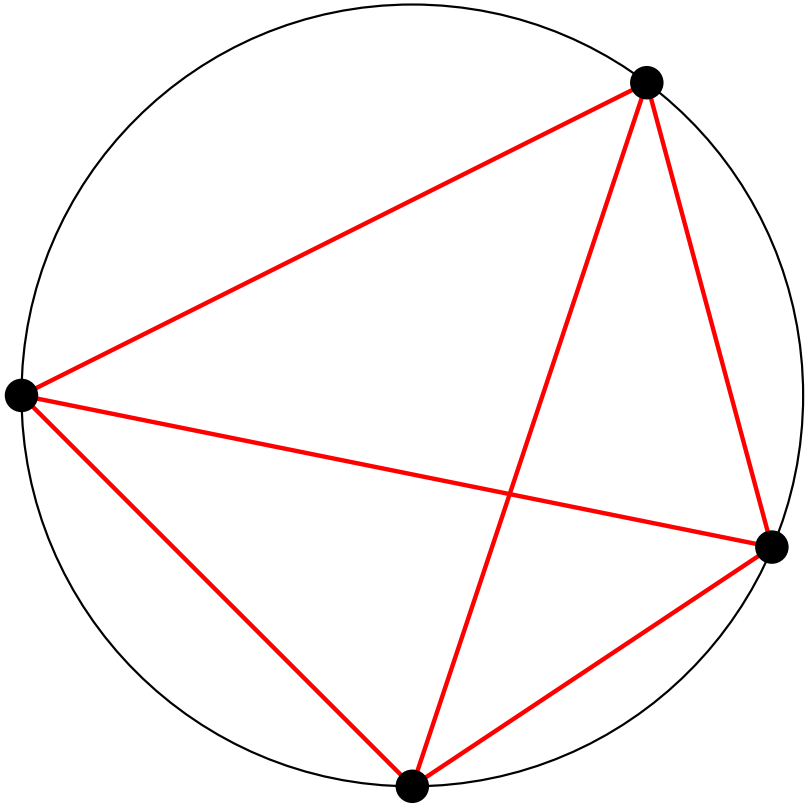
A warm-up problem

- Pick 4 points at random on a circle (without any symmetry).
- Join every pair of points.



A warm-up problem

- Pick 4 points at random on a circle (without any symmetry).
- Join every pair of points.
- In how many regions is the circle divided?



Fire

Which of the following statements are equivalent to the statement,

"No two students in this class are not on fire."

Which are equivalent to its negation?

(A) "All student in this class, except at most one, are on fire."
(B) "Two students in this class are on fire."
(C) "For any pair of students in this class, one of them is on fire."
(D) "At least two students in this class are not on fire."
(E) "If I choose two students in this class and one of them is not on fire, then the other one is on fire."