

Solutions

Each answer shows the steps, then the **result**.

2.1

- any two of: many failed logins in a short time; logins at unusual hours; logins from unknown devices

2.2

- it follows a common pattern - word + year + symbol - that an adversary's dictionary of guesses expects

2.3

- any two of: use long/random/unique passwords; use a password manager; enable MFA

3.1 B

- a burst of failed logins signals guessing

3.2 C

- long + random + unique beats any pattern

3.3

(a)

- multifactor authentication / MFA

(b)

- MFA needs a second factor, so a stolen password alone cannot log in