Some solutions we do not cover today will be posted online.

10-12 MCQs worth 30-36 Marks. E.g. if 36:
$$\frac{36}{100} \times 90 = 32.4 = 32 \text{ minutes and 24 seconds.}$$

- 3 Marks if **correct**.

- -1 Mark if **incorrect**.

- 0 Marks if **skip**.

Do NOT attempt unless you can **eliminate** so there are **no more than 4** possible choices remaining.

5 unknown. Probability guess is correct $= \frac{1}{5}$. Expected mark:
$$\frac{1}{5}(3) + \frac{4}{5}(-1) = \frac{3-4}{5} = -\frac{1}{5}$$

Elimination: 4 unknown. Probability guess is correct $= \frac{1}{4}$. Expected mark:

$$\frac{1}{4}(3) + \frac{3}{4}(-1) = \frac{3-3}{4} = 0$$

which is the mark you get if you skip the question.

Elimination: 3 unknown. Probability guess is correct $= \frac{1}{3}$. Expected mark:

$$\frac{1}{3}(3) + \frac{2}{3}(-1) = \frac{3-2}{3} = \frac{1}{3} > 0$$

Definitely guess! No point in being risk averse / risk lover $-$ be risk neutral here! ☺

Elimination Tips:

- Eliminate!

- Obvious − avoid.

- Absurd / ridiculous.

- Too narrow.

- Too general.

Applies for SATs / GREs.

Feeling adventurous?

Midterm MCQs (by next week / week after):

- 2012: 8, 9, 10, 12.

- 2011: 1, 3, 4, 6, 7, 8, 9.

- 2010: 1, 2, 3, 8, 9, 10.

- 2009: 1, 2, 3, 4, 6, 7, 8, 11.

- 2008: 1, 2, 3, 4, 5.

Q4 part (d). ICBST: 'It Can Be Shown That'

$$\text{Claim 1: } l = w^{\frac{1}{2\sigma+1}}$$

$$\text{Claim 2: } l = [(1-t)w]^{\frac{1}{2\sigma+1}}$$

Proof.

$$wu'(c) = v'(l) \implies wc^{-1/2} = l^\sigma$$

$$\overset{c=wl}{\implies} \frac{w}{\sqrt{wl}} = l^\sigma \implies w^{1/2} = l^{\frac{2\sigma+1}{2}}$$

$$\implies l = w^{\frac{1}{2\sigma+1}}$$

and multiply $(1-t)$ by w in
second ICBST since
since $c = (1-t)wl$. □