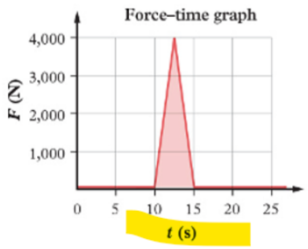
ERRATA

OXFORD *PHYSICS FOR QUEENSLAND* U1&2 (2025)

Module	Error	Correction	Updated digital online	Update print version
2.1.	Definition of energy in sidebar symbol: W	symbol: E	Done	To be done p48
2.11 Data Drill	They placed 100.0 g of each liquid	They placed 1,000.0 g of each liquid	Done	To be done p77
3.1 Skill Drill	(1 d. p.)	Remove al four instances of "1 d.p."	Done	To be done p88
7.4	CYL 7.4 Q10 "…draws 1500 A from a battery for 3.0 s."	…draws 1500 A from a 400 V battery for 3.0 s.	Done	To be done p235
7.5	WE 7.5B, Step 3, second equation $R_1 = \frac{RA_1L}{L_1A}$	$R_1 = \frac{RAL_1}{LA_1}$	Done	To be done p239
7.6	WE 7.6C Step 4 $\text{Gradient} = \frac{(27.5 \times 10^{-3}) - 0}{(5 \times 10^{-3})}$	$\text{Gradient} = \frac{(27.5 \times 10^{-3}) - 0}{5}$	Done	To be done p246
10.3	CYL 10.3 Q 3(c) Value for acceleration, a, in the 5th column has units m s^{-1}	Value for acceleration, a, in the 5th column should have units m s^{-2}.	Done	To be done p367
10.9	Equation after Fig 3 $v_2 = \frac{10 - 60}{6}$ $= -8.3\,\text{m s}^{-1}$ or $-8\,\text{m s}^{-1}$ (1 s.f.)	$v_2 = \frac{0 - 60}{6}$ $= -10\ \text{m s}^{-1}$ (1 s. f.)	Done	To be done p395
10.11	Review question 35		The x-axis label should read: t (ms)	To be done

7.9B OBook Answers	Q34b Answers. The questions and answers do not match the digital online version or the printed version.	Please see the correct questions and answers at the end of this document.	Done	NA
14.7 Obook	Module 14.7 Practical. Results Question 7: $\frac{\sin r}{\sin r}$	Results Q7: $\frac{\sin r}{\sin i}$.	Done	NA

Module 7.9B

34 A meter that is part of a circuit is shown.

a **Determine** the reading on the meter (on the 5 A scale) to the nearest half-scale division (including its uncertainty). Give your answer to two decimal places. (2 marks)

The reading is 0.15 ± 0.05 A. (1 mark for best estimate, 1 mark for uncertainty)

b **Discuss** whether you could get a more accurate reading by changing to one of the other scales. (2 marks)

The accuracy of a meter is a measure of how close a scale reading measurement is to the true value. (1 mark)

The accuracy is determined by the meter and not the scales, so changing from one scale to another will not affect its accuracy. (1 mark).

Extended answer (not for marks): The accuracy of a meter is commonly expressed by the manufacturer as a percentage of the full-scale deflection, e.g. 1%. For the meter in the diagram if the percentage error was 1%, the accuracy of each scale would be the same. However, accuracy can also be expressed as the absolute error value. This means that the same percentage error will represent a larger absolute error at higher values on the scale compared to lower values. For example,

5A scale: 1% of 5 A = 0.05 A (50 mA)

500 mA scale: 1% of 500 mA = 5 mA

50 mA scale: 1% of 50 mA = 0.5 mA

Thus, in terms of percentage error, all scales are the same. In terms of absolute error, the 50 mA scale would be the most accurate as it has the lowest error (0.5 mA).

c A student claimed that this was a multimeter because it had multiple scales. **Evaluate** whether this is an ammeter or a multimeter. (2 marks)

It is an ammeter (1 mark) as a multimeter has multiple functions (ammeter, voltmeter, ohmmeter, continuity tester…) not multiple scales. (1 mark)