Pearson Edexcel

F2F Teaching and Learning

Activity 2 answers

Question 3

A

(i) M1: Allowable attempt proceeding to a 3TQ

A1: Achieves both $x^2 -10x+25$ and $(x-5)^2$

A0*: Incomplete proof

(ii) B1: For showing the statement is untrue when $n = 3$

B

(i) M1: Allowable attempt proceeding to a 3TQ

A1: Achieves both $x^2 -10x+25$ and $(x-5)^2$

A0*: Correct algebra but there is an incorrect statement (it is not zero when $x = 0$) and the candidate does not refer back to the original statement

(ii) B1: Shows that it is untrue for both 3 and 6

C

(i) M1: Allowable attempt proceeding to a 3TQ

A0: Achieves $x^2 -10x+25$ but not $(x-5)^2$

A0*: Follows

(ii) B0: Does not show the statement is untrue

……

Question 8

D

(i) There are multiple attempts so we score the best attempt which is the first attempt on page

M1: For taking logs of both sides and using the power law. This may be allowed on line 1

A1: Achieves a correct linear equation in x involving only logs of base 2. In this case $(2x+1)3 = \log 26$

M0: Fails to use $\log 26 = \log 22+\log 23$

A0: Follows

(ii) M1: For use of one correct log law dM1: For use of two correct log laws seen on line 2

A1: For a correct equation in y not involving logs

ddM1: For a correct attempt to find one value of y from a 3TQ in y

A0: Does not choose $y = -6+\sqrt{70}$

E

(i) M1: For taking logs of both sides and using the power law scored on line 2. We condoned the incorrect line 1 as line 2 is correct.
A1: Achieves a correct linear equation in x involving only logs of base 2, seen on line 2. In this case $6x+3 = \log 26$
M0: Fails to use $\log 26 = \log 22+\log 23$
A0: Follows
(ii) M1: For use of one correct log law seen on line 2
dM0: There is an incorrect subtraction law used from line 2 to line 3
A0 ddM0 A0: Follows dM0

F

(i) M1: For taking logs of both sides and using the power law seen on line 3
A0: Does not achieve a correct linear equation in x involving only logs of base 2. This cannot be scored for $6x\log 2=\log(3/4)$ as the base is missing.
M0: Fails to use $\log 26 = \log 22+\log 23$
A0: Follows
(ii) M1: For use of one correct log law dM1: For use of two correct log laws A1: For a correct equation in y not involving logs
ddM1: For a correct attempt to find one value of y from a 3TQ in y
A1: $y = -6+\sqrt{70}$ chosen

G

(i) M1: For taking logs of both sides and using the power law scored on line 5
A1: Achieves a correct linear equation in x involving only logs of base 2: $\log 26 = 6x + 3$ also scored on line 5 M1: For using $\log 26 = \log 22 + \log 23$
A0: Incorrect answer
(ii) M1: For use of one correct log law. Seen on line 1 for the power law dM1: For use of two correct log laws. Seen on line 2
A1: For a correct equation in y not involving logs. Seen on line 3
ddM1: For a correct attempt to find one value of y from a 3TQ in y
A1: $y = -6+\sqrt{70}$. They change this to 2.4 but do select this solution and so A1 is scored

<u>Question 5 International GCSE (Common to 1F and 1H)</u>

I

M2 for 45 or 75
M1 for 15 or 30
M1 for 48 or 27

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M1 for 27 + 30
A0 for an incorrect answer (added 27 + 30 incorrectly

J
M2 for 45 or 75
M0 as not done 45/3 oe
M1 for 48
M0 for an incorrect method (48 + 24)
A0 for an incorrect answer

K
M2 for 45 or 75
M0 M0 M0 A0 for no clear methods shown
NOTE: If they put the incorrect labelling for girls and boys, (e.g. 45 girls and 75 boys) we will ignore the incorrect labels for the first THREE method marks but NOT the 4th and 5th method mark.
So: e.g. they could get the 3rd M mark for '75'/3 (= 25) or '75'/3 x 2 (=50)