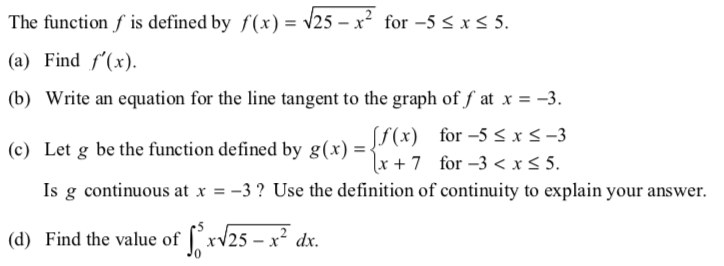
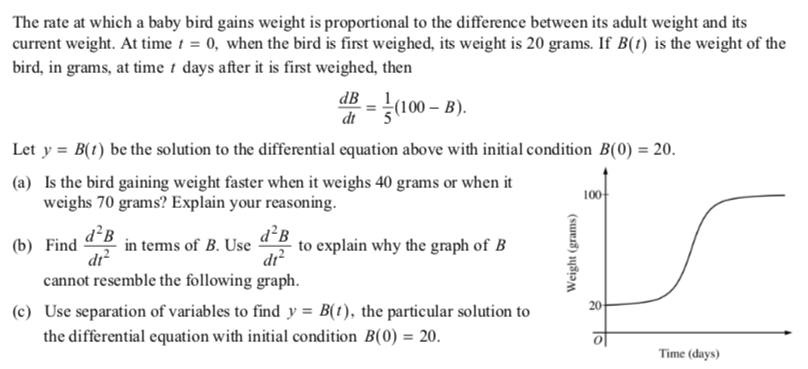
*All of the AP Questions below are noncalculator.*

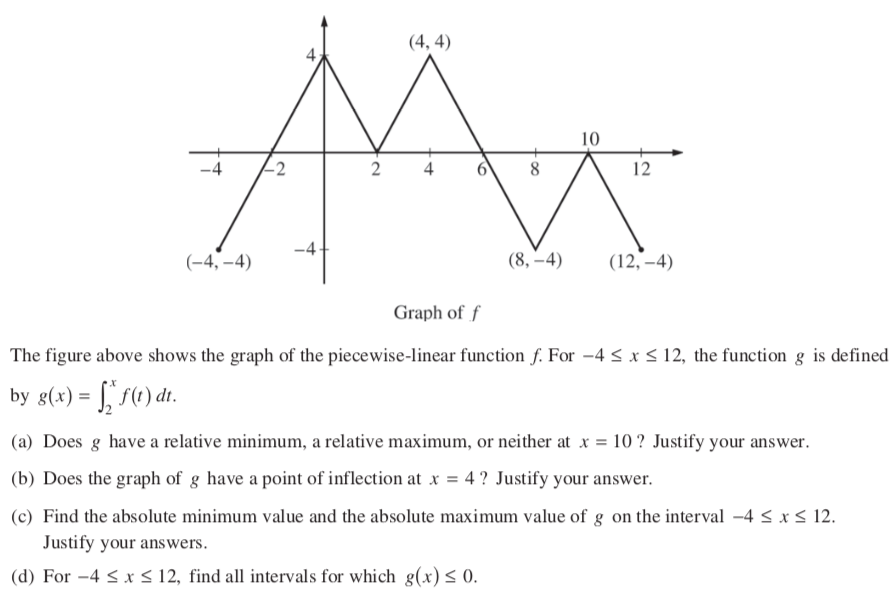
**2012 #4**



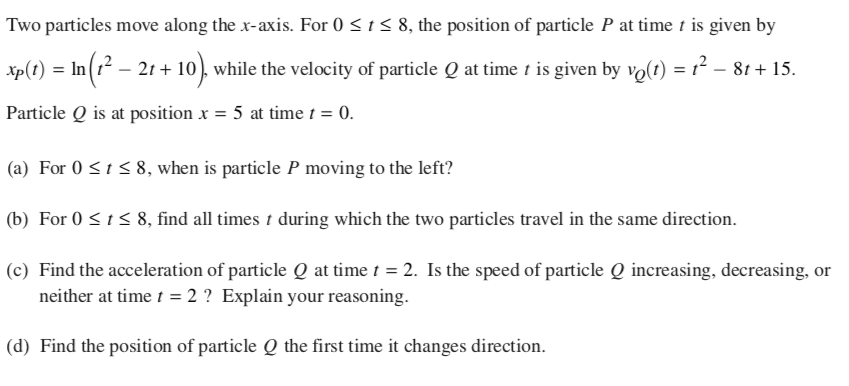
**2012 #5**

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**2016 #3**

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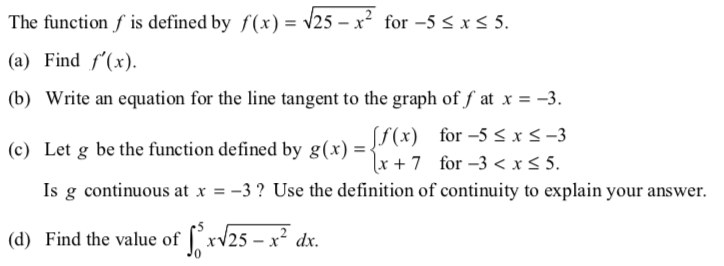
**2017 #5**

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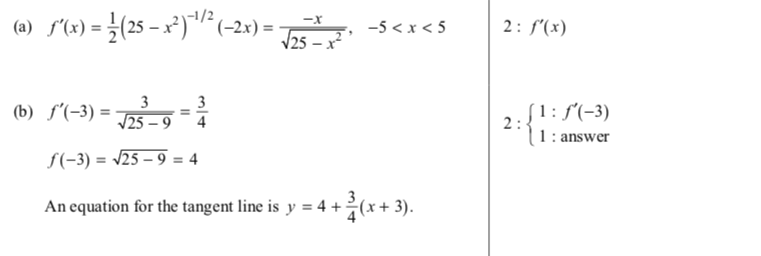
*\*Note that part (d) can be solved with antiderivatives or start+accumulation from Lesson #85/86. That video lesson can be found on course website. Part (d) would not be on the 2020 AP test.*

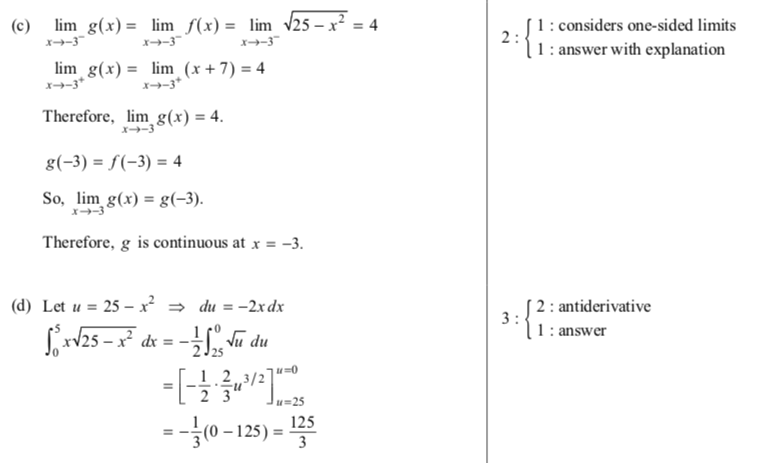
**Scoring Guidelines**

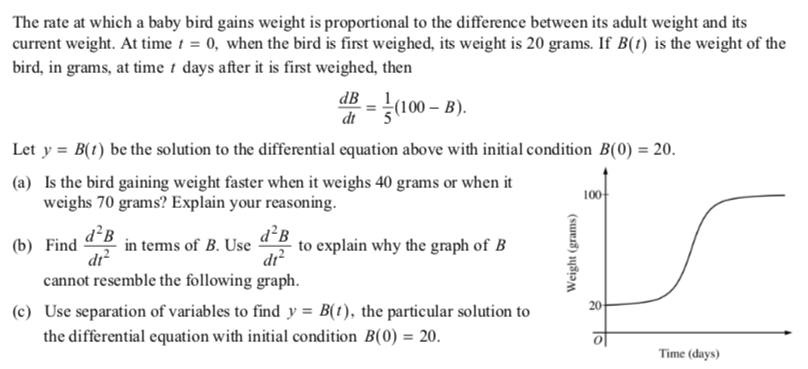
**2012 #4**

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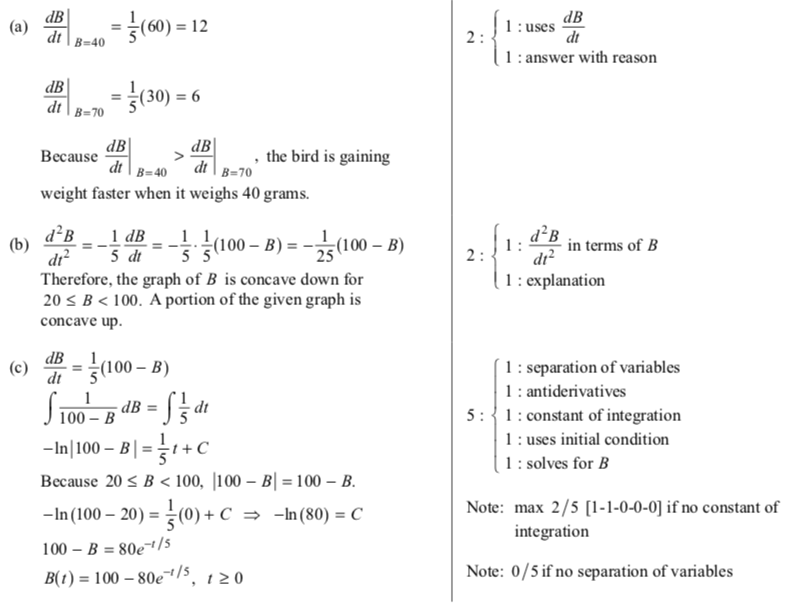
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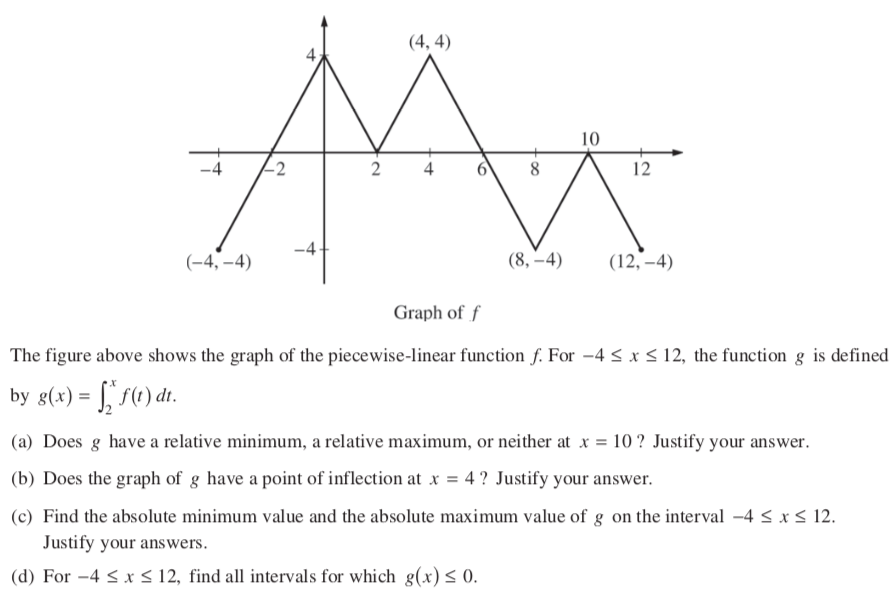
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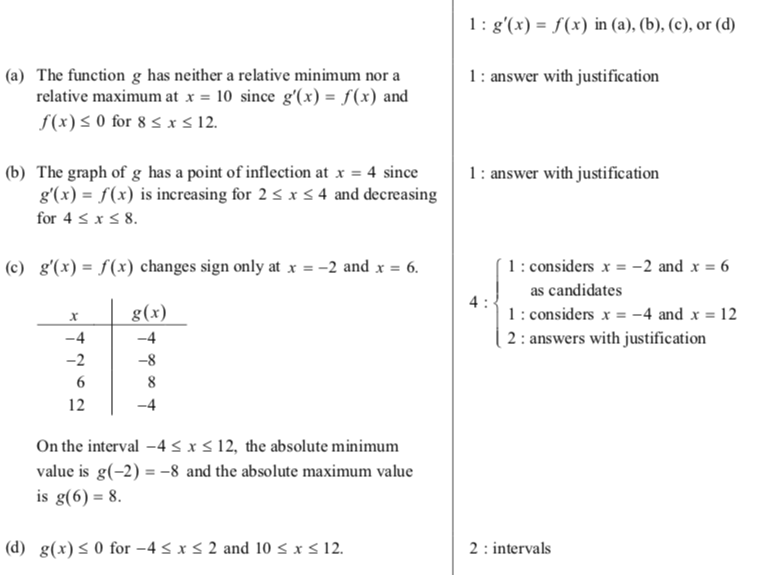
**2012 #5**

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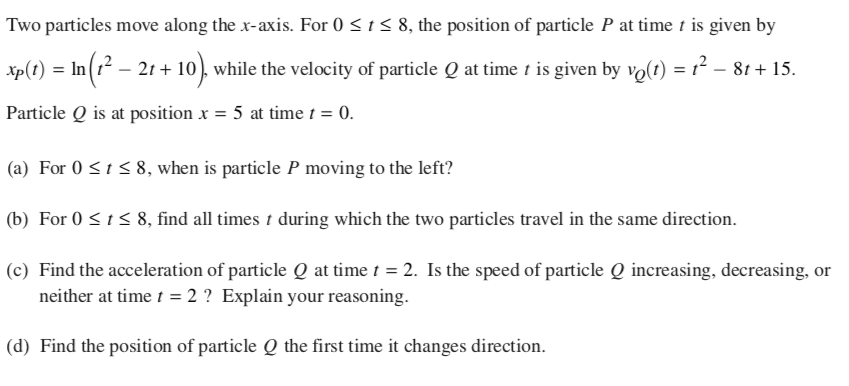
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**2016 #3**

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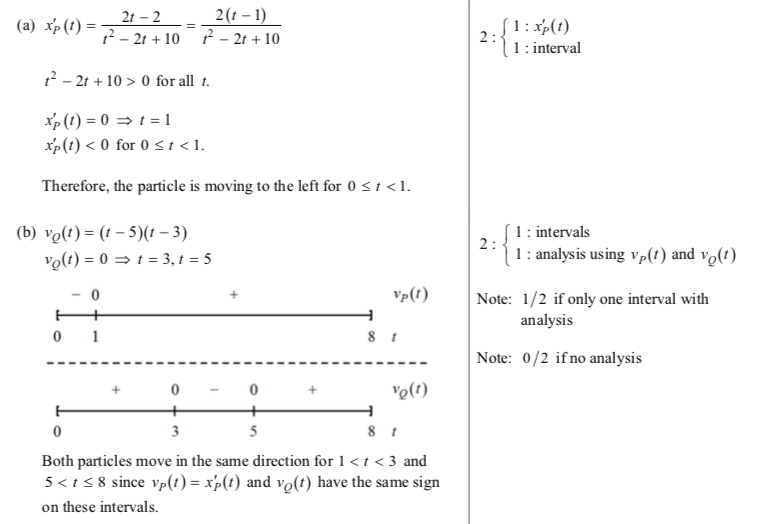
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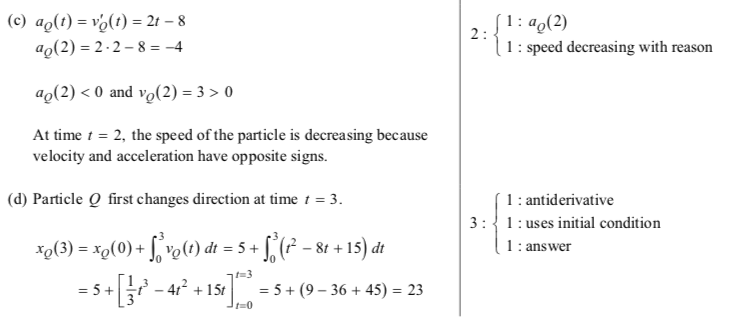
**2017 #5**

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*\*Note that part (d) can be solved with antiderivatives or start+accumulation from Lesson #85/86. That video lesson can be found on course website. Part (d) would not be on the 2020 AP test.*

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