**PRE-CAlcULUS 12**

**Review Questions**

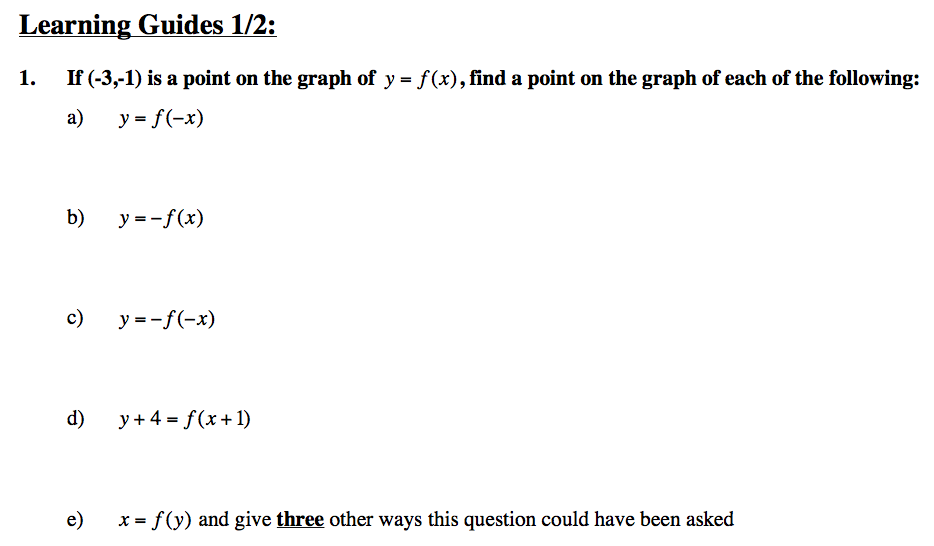
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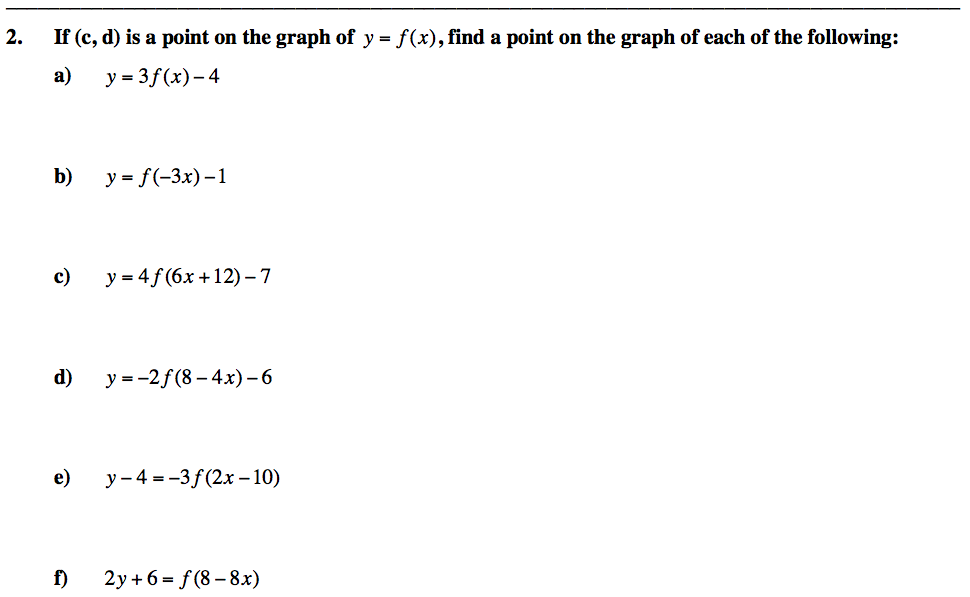
**Final Exam**

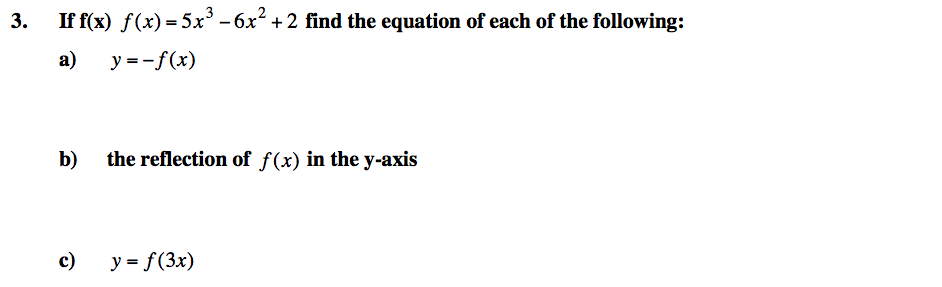
**LG 17**

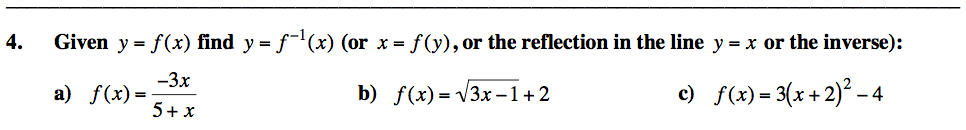
**take-home package**

Frances Kelsey Secondary School – 2019/20

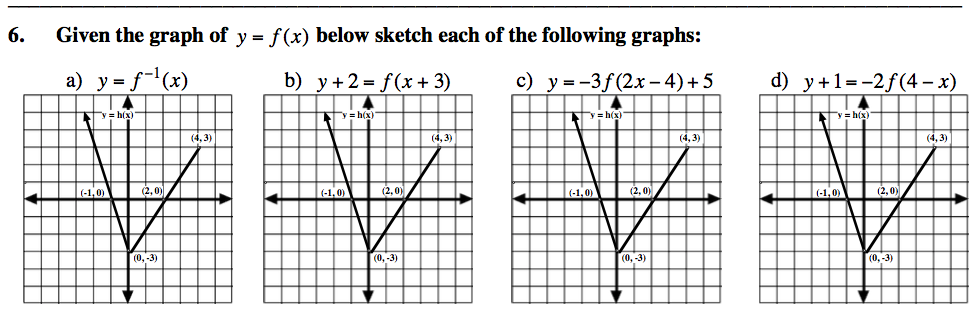




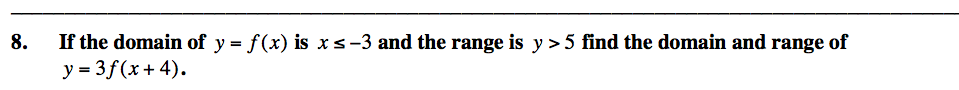


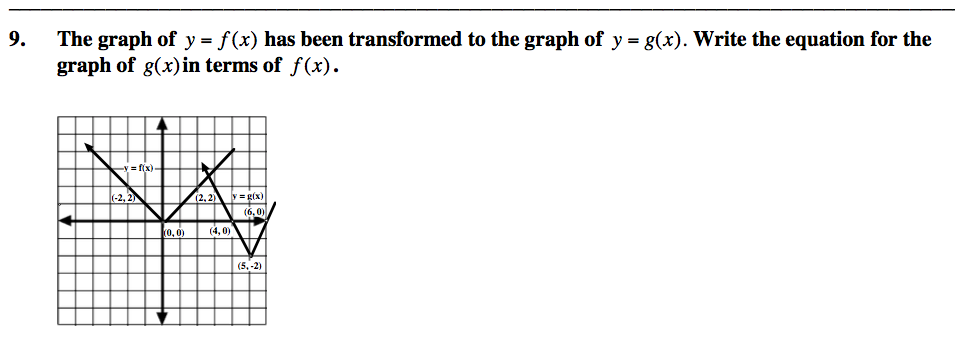


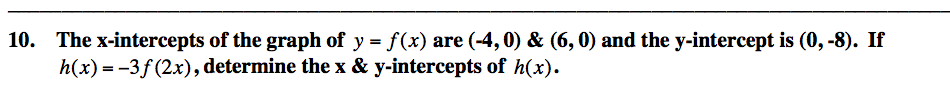
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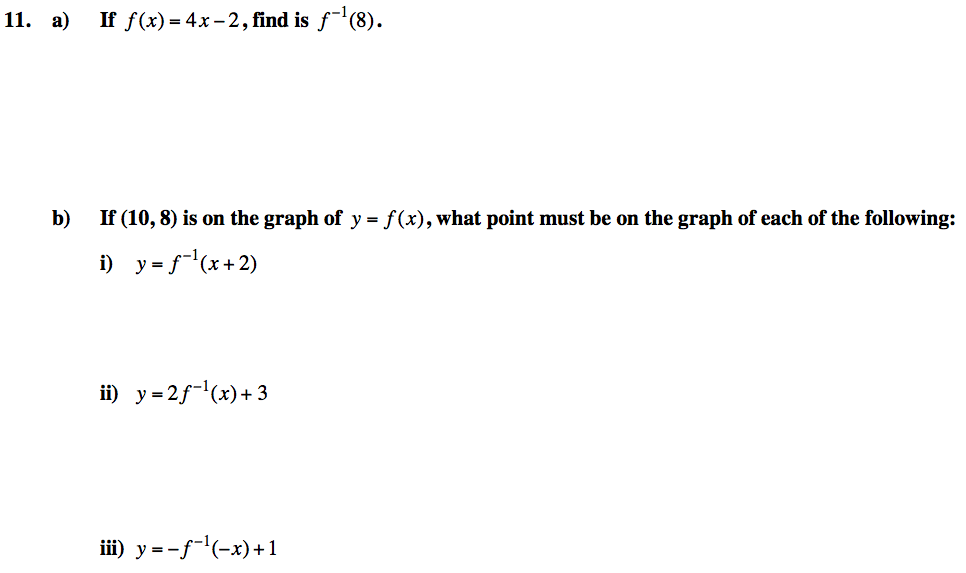


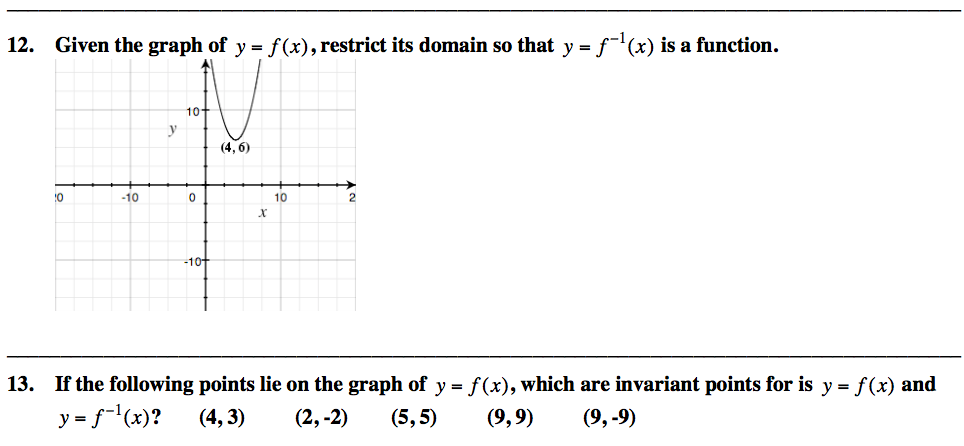
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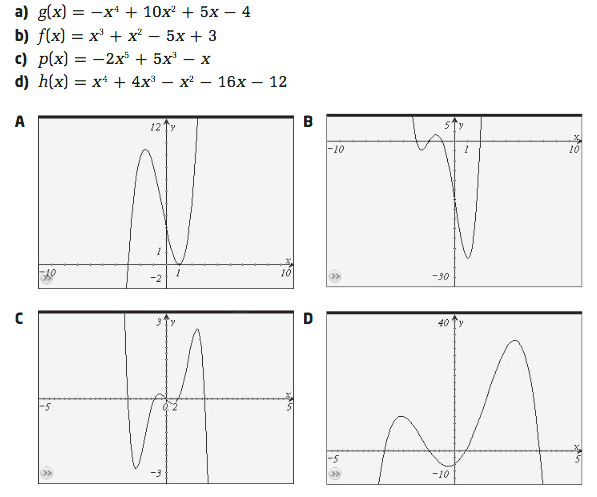




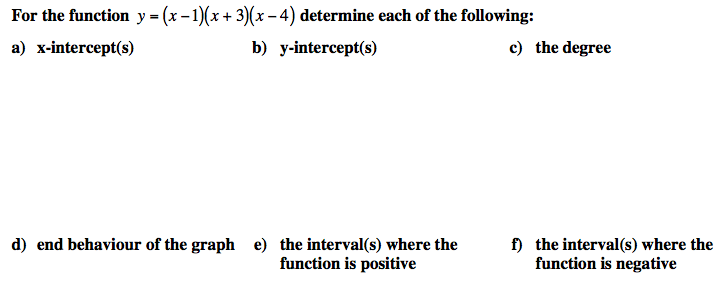


**Learning Guide 3**

**1.** Match each function to its corresponding graph.

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**2.**

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**3.**  Use synthetic division to determine the remainder for .

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**4**. Use the remainder theorem to determine the remainder when

is divided by

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**5.** Determine the value of *k* if the remainder is 3 for

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**6 a)**

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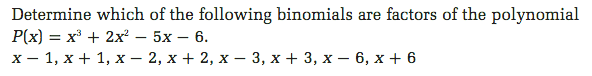
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**6 b)**

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**7.**

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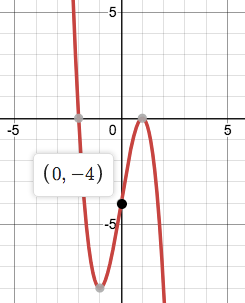
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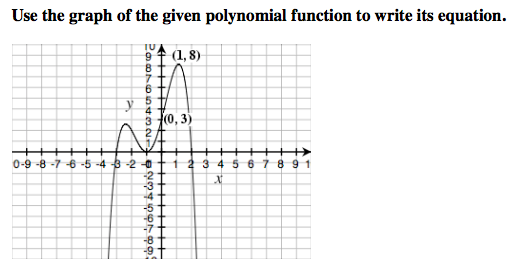
**9.** Factor fully .

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**10a)** Determine the equation of the function shown on the graph below.

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**10b)**

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**11.** Determine the equation of the function that the zeros are -2, -1, and 3 (multiplicity 2)

and passes through the point (2, 24).

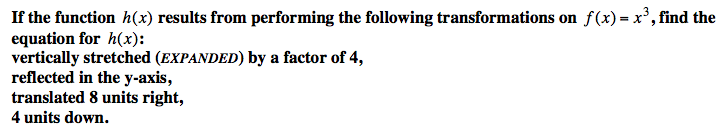
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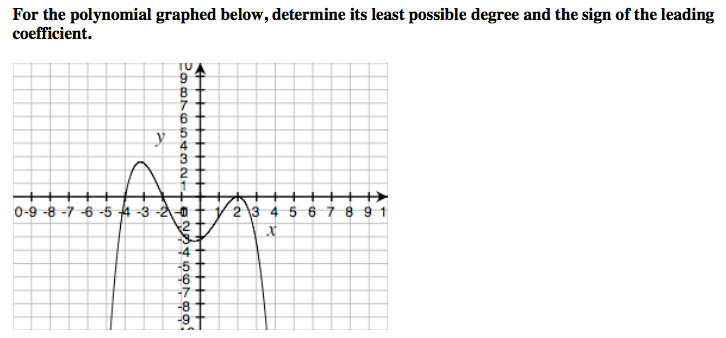
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**13.**

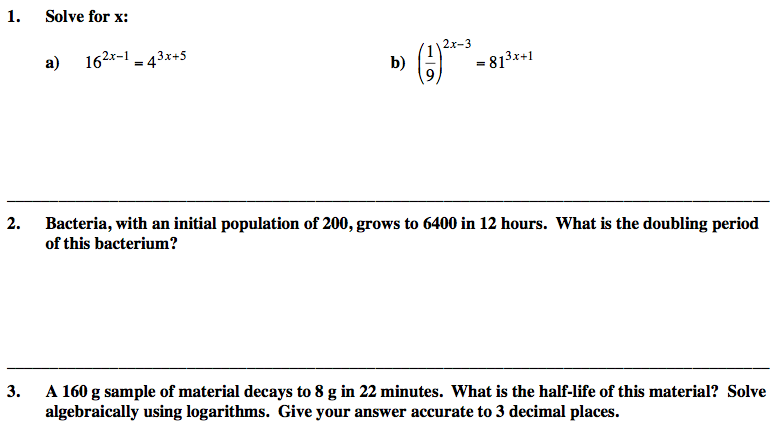
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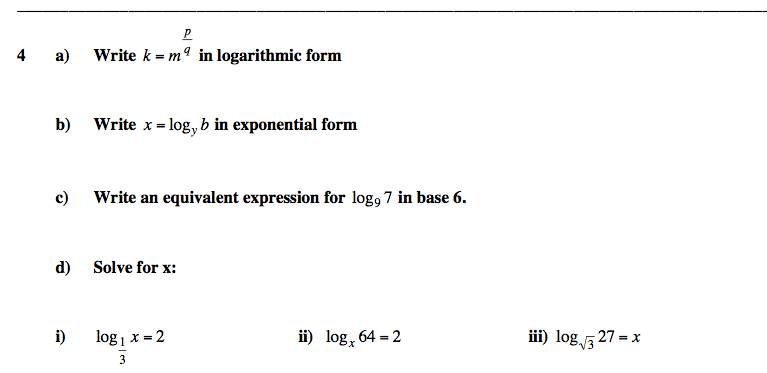
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**14.**

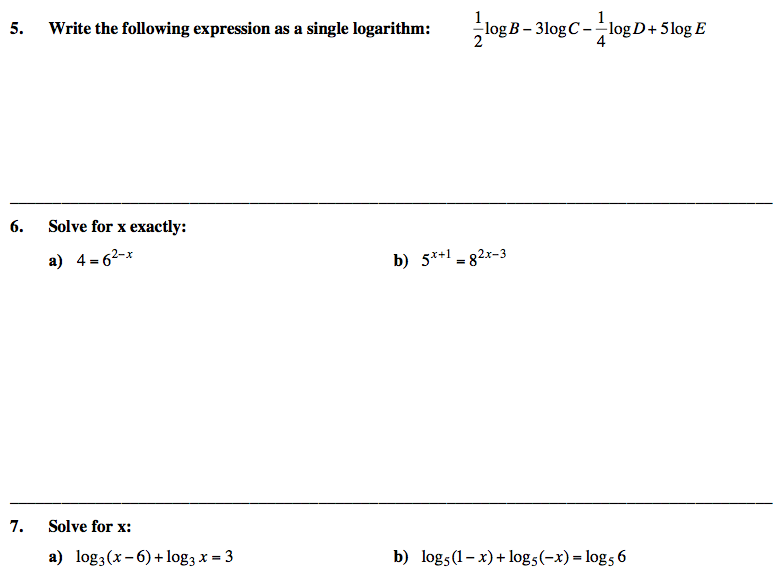
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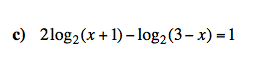
**Learning Guide 4/5**

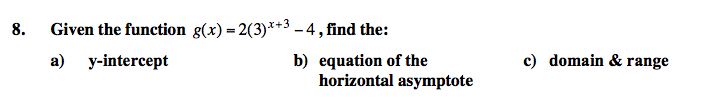
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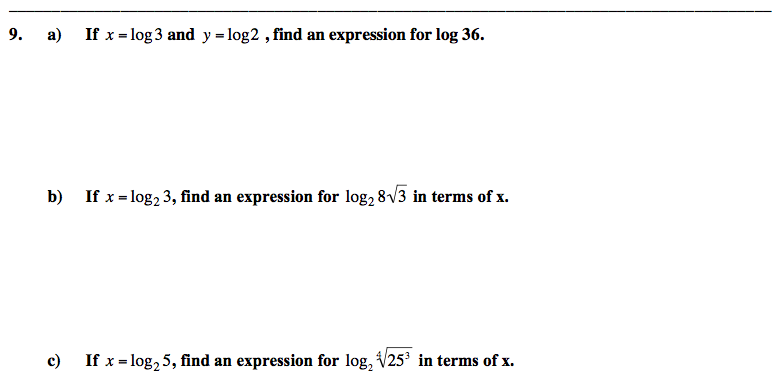
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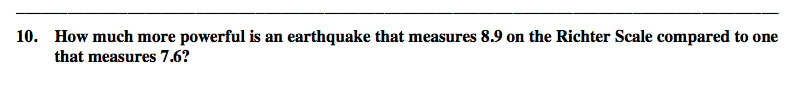
**iv) v)**

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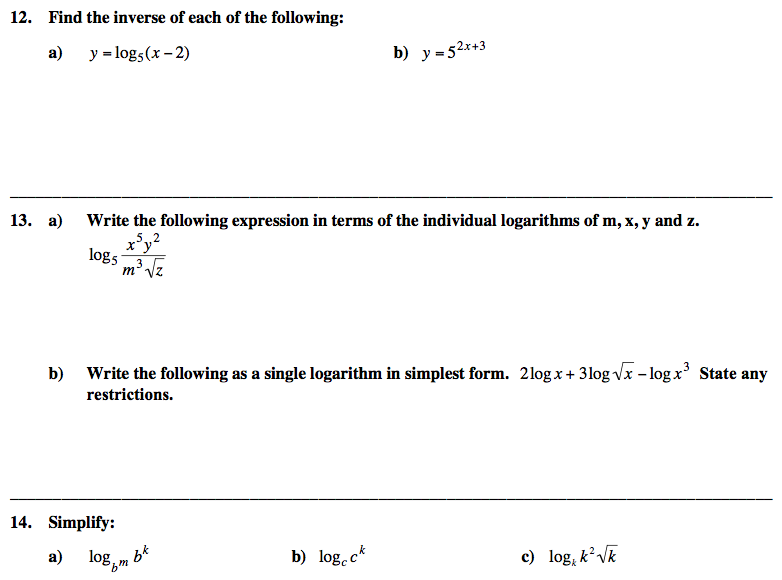
**11.** A 200 g sample of radioactive polonium-210 has a half-life of 138 days.

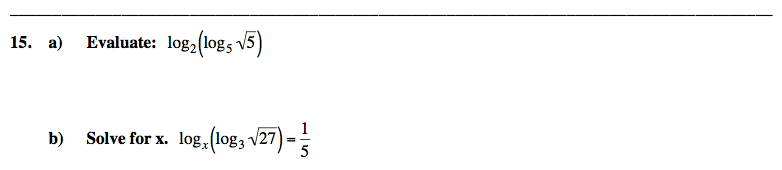
a) Determine an equation to model this situation of the mass of polonium that remains

after *t* days.

b) Determine the mass that remains after 5 years?

c) How long will it take for this 200 g sample to decay to 12.5 g?

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**Learning Guide 6**

**1.** Find the sum of the geometric series.

a) b)

c) d) given and

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**2.** A geometric series has a sum of 1365. Each term increases by a factor of 4. If there are 6 terms,

find the value of the first term.

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**3.** Rewrite each series as a sum.

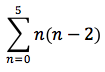
a) b)

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**4.** Evaluate each series.

a) b)

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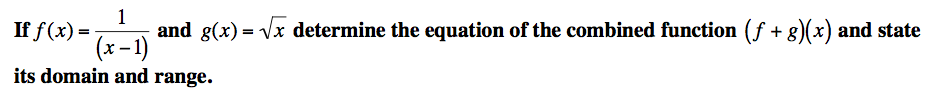
**5.** Rewrite each series using sigma notation.

a) b)

c) d)

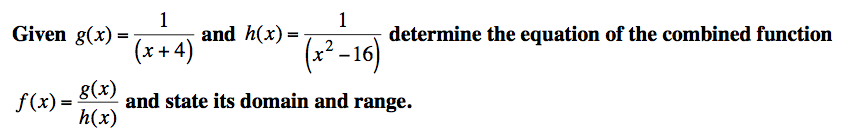
**Learning Guide 7/8**

**1.**

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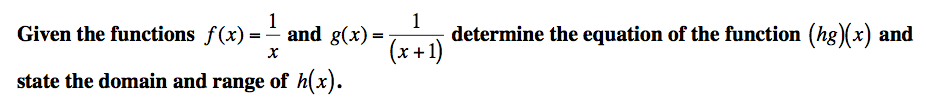
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**2.**

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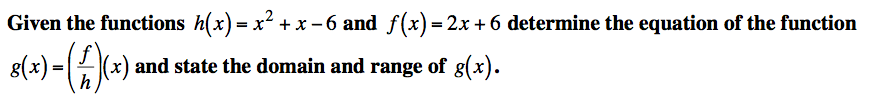
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**3.**

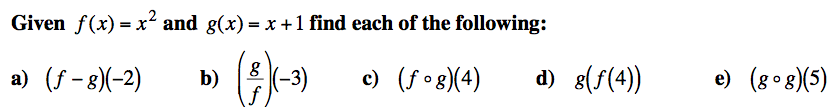
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**4.**

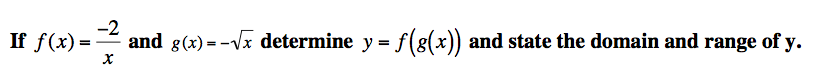
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**5.**

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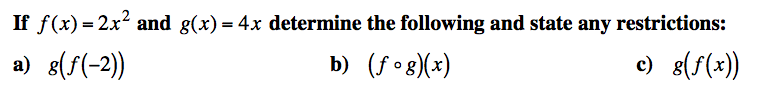
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**6.**

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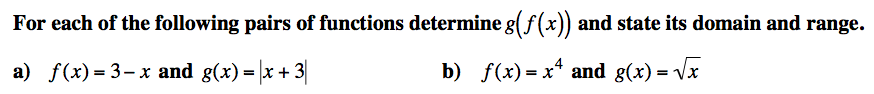
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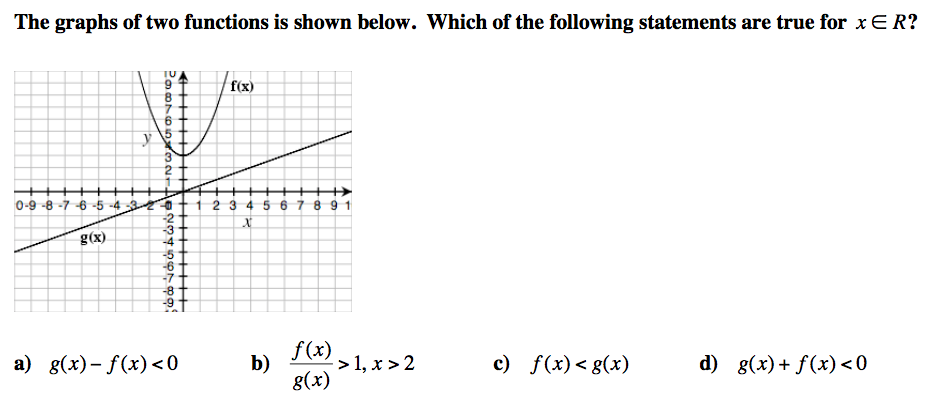
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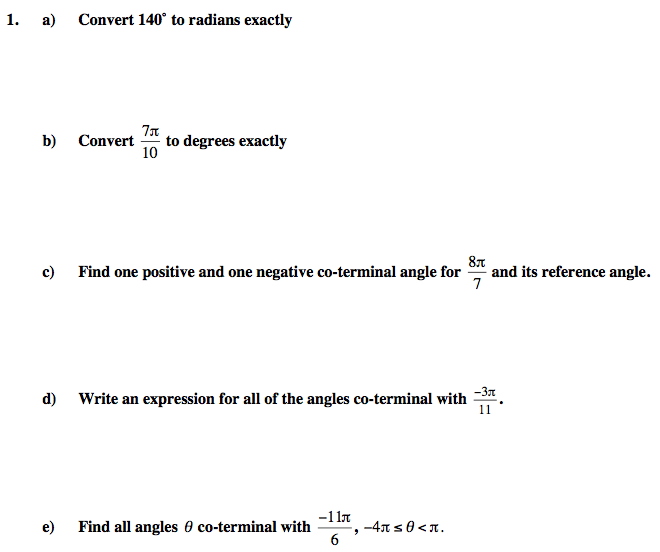
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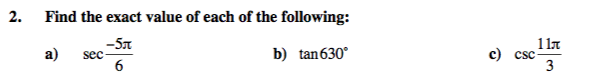
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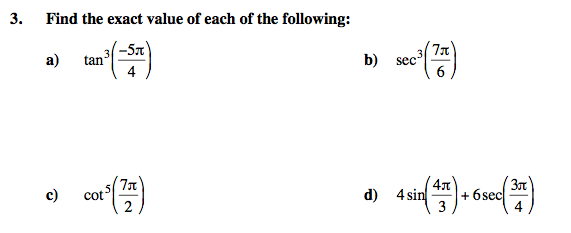
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**Learning Guide 10/11**

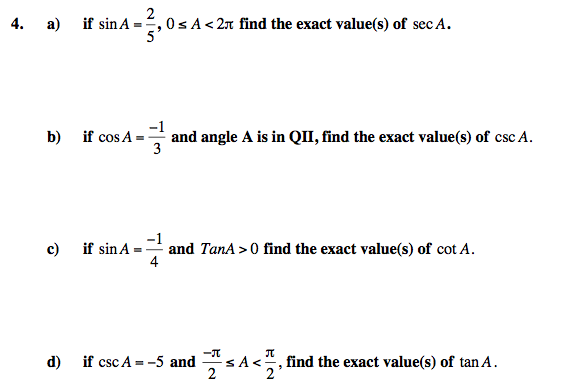
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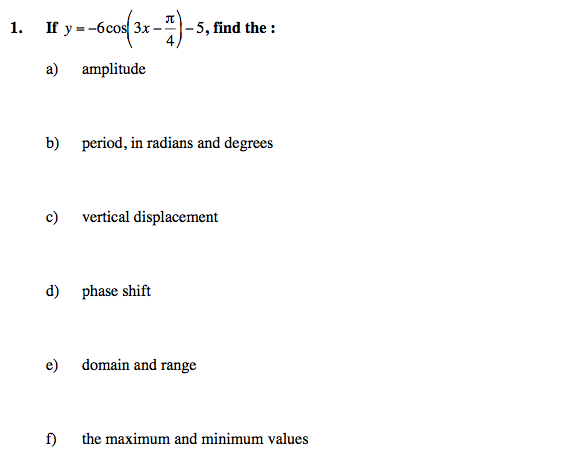
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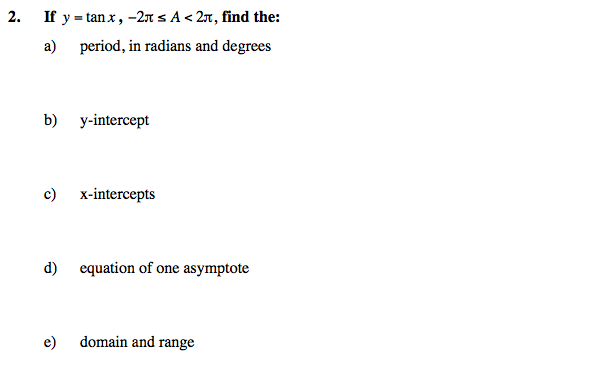
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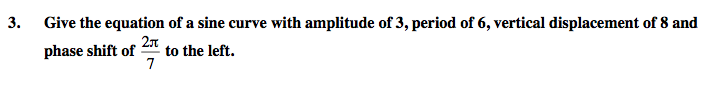
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**Learning Guide 12/13**

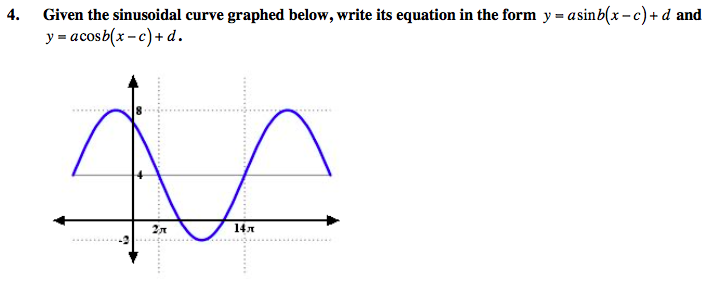
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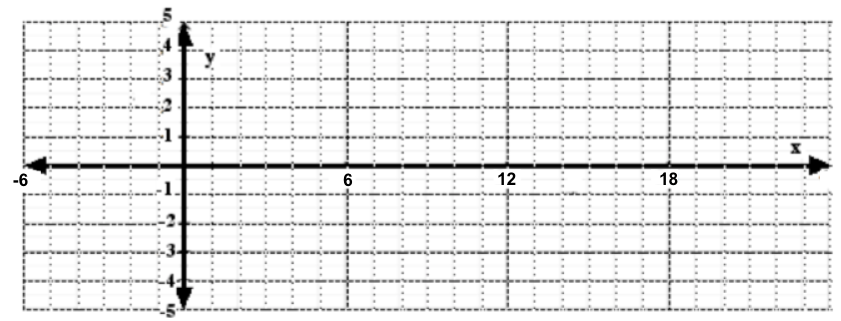
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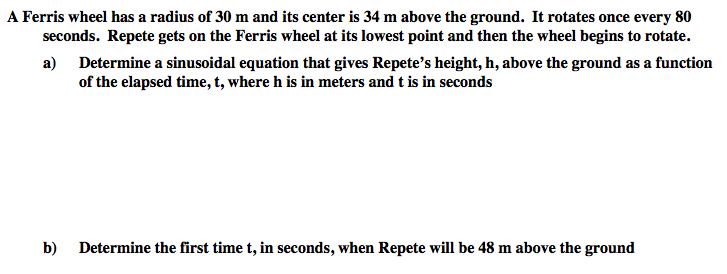
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**5.** Graph for two cycles.

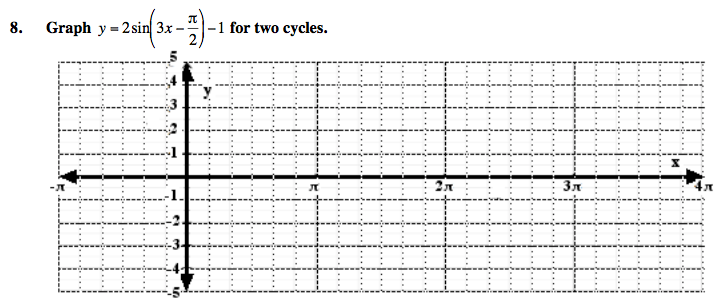
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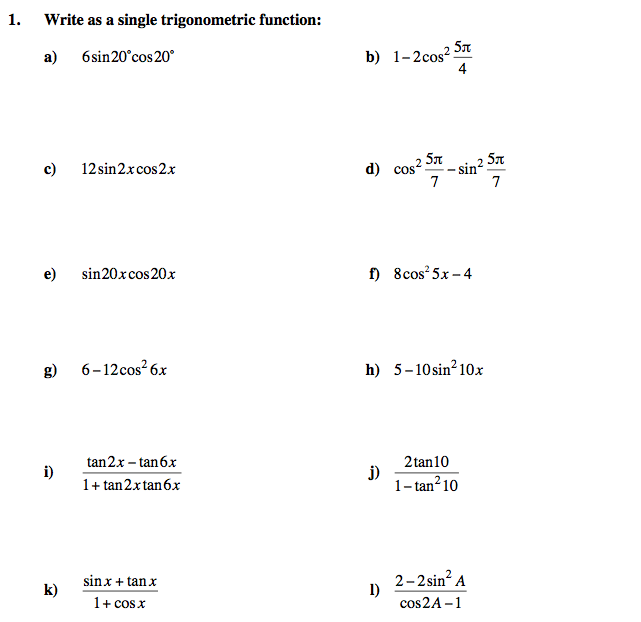
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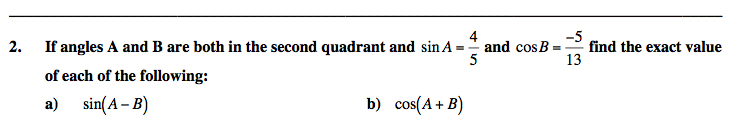
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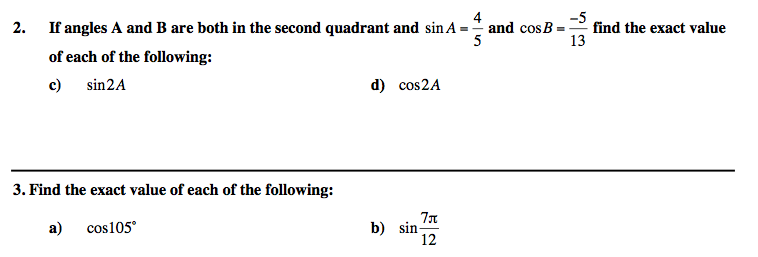
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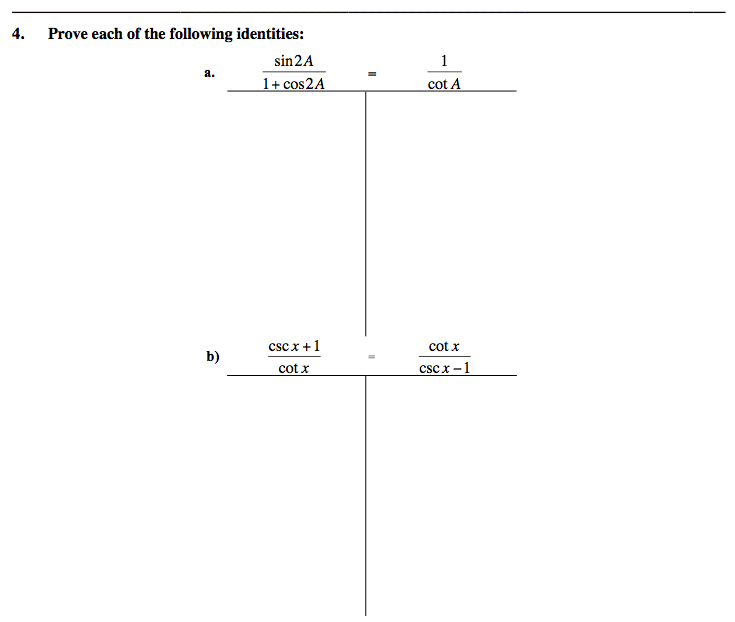
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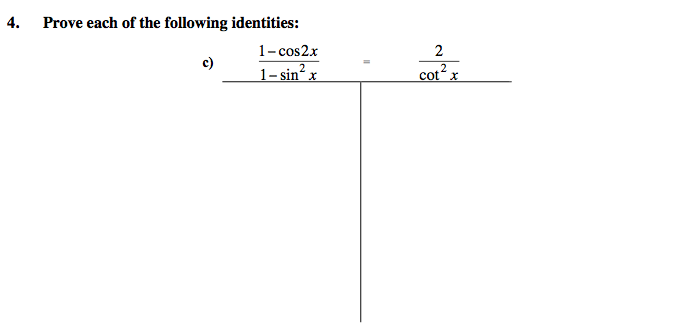
**Learning Guide 14/15**



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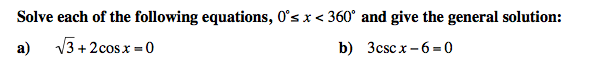
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**Learning Guide 16**

**1.**

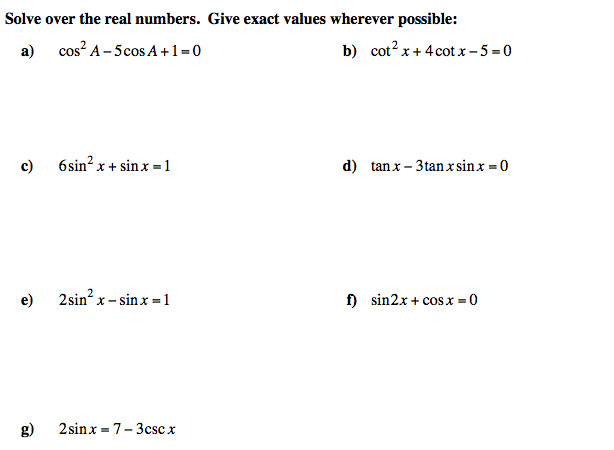
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**2.**

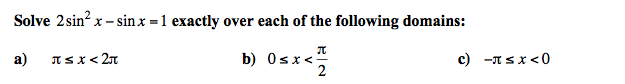
**../../../Screen%20Shot%202019-05-03%20at%204.44.37%20PM.png**

**3.**

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**4.**

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**5.**

**../../../Screen%20Shot%202019-05-03%20at%204.45.16%20PM.png**