<table>
<thead>
<tr>
<th>Question</th>
<th>Points</th>
<th>Notes</th>
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<tbody>
<tr>
<td>1</td>
<td>20/20</td>
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<tr>
<td>2</td>
<td>24/20</td>
<td>+4 point: For additional info for question 2b.</td>
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<td>3</td>
<td>20/20</td>
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<td>4</td>
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<tr>
<td>5</td>
<td>20/20</td>
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Extra Credit: 

Missed Points: 

Final Score: 104

Additional Comments:
1. You are designing home playground equipment. You want your product to be welcoming but you also need to be sure that your design is safe for children to use. You know that there is a standard on playground safety that can help you ensure your design is safe and help you answer the following questions:
   a. What is the standard test weight for a single occupancy swing in pounds and kilograms?
      i. Single occupancy swings are tested using a test weight of 80 lb (37 kg)
   b. What is the required range for tread width on a single file access stepladder in inches? What about for a stepladder with two-abreast access?
      i. The required range for tread width on a single file access stepladder is 12 to 21 inches.
      ii. It is not recommended to build a stepladder with two-abreast access.

Citation for both questions:

We used the the ASTM Compass Database.

2. It would be helpful to get some statistics on the size of the retail market for smartphones in the United States
   a. What is the revenue in $ of the retail market for smartphones in the United States in 2021?
      i. US retail market sizer: $84.1 Billion
   b. What specific company has the largest market share within this industry?
      i. Within the global industry, Samsung is has the largest market share
      ii. Apple leads US market share with 49.3%

3. You need to find a partner to help develop and commercialize (hopefully) your new product idea for greeting cards. An industry expert has suggested to you that Hallmark Cards, Incorporated might be a potential partner. Before contacting them, learn more about Hallmark Cards, Incorporated.
   a. The year when the company was founded or incorporated: **1910**
   i. Orbis, https://orbis.bvdinfo.com, Key Information, September 15, 2021
   b. The address of their headquarters: **2501 MCGEE St. Kansas City, MO 64108-2615 USA**
   i. Orbis, https://orbis.bvdinfo.com, Key Information, September 15, 2021
   c. Total number of employees worldwide: **14600 employees**
   i. Orbis, https://orbis.bvdinfo.com, Key Information, September 15, 2021
   d. Latest revenue (sales) figures: **$2.56b, 2020**
   i. Orbis, https://orbis.bvdinfo.com, Key Information, September 15, 2021
   e. What is the US 8-Digit SIC: **27710000**

4. You would like to learn more about vegetable gardening, and you know that the right book can provide a good summary on this topic.


   b. Scholarly article on topic of irrigation of gardens or crops

   2. Does MIT have a print subscription to the journal? - No, MIT doesn’t have a print subscription. Does MIT have access to an electronic version of this article? - Yes, MIT has access to an electronic version on Elsevier.
   a. Patent Title: Electronic device comprising fingerprint sensor
   c. Assignee: Fingerprint Cards Ab
      i. Inventor: Nilsson, Henrik
   d. Classification: G06K 9/0002 - by non-optical methods
   e. Found in PATENTSCOU with a keyword search for “fingerprint sensor”

Citation: