# IPO PROGRAMMING EXERCISES

For each of these exercises, write and deploy a Java application that does the computation.

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>Convert tons to pounds.</td>
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<td>2.</td>
<td>Convert meters to feet.</td>
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<td>3.</td>
<td>Convert kilometers to miles.</td>
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<td>4.</td>
<td>Convert grams to ounces.</td>
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<tr>
<td>5.</td>
<td>Convert ounces to grams.</td>
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<tr>
<td>6.</td>
<td>Convert kilograms to pounds.</td>
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<tr>
<td>7.</td>
<td>Convert pounds to kilograms.</td>
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<tr>
<td>8.</td>
<td>Convert yards to inches.</td>
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<tr>
<td>9.</td>
<td>Convert ounces and pounds to the total number of ounces.</td>
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<td>10.</td>
<td>Convert inches and feet to total number of inches (e.g. 5’ 6” is 66”).</td>
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<tr>
<td>11.</td>
<td>Convert inches and feet to total number of feet (e.g. 5’ 6” is 5.5’).</td>
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<td>12.</td>
<td>Convert feet to inches and feet (e.g. 6.25’ is 6’ 3”).</td>
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<tr>
<td>13.</td>
<td>Convert hours and minutes to total number of minutes (e.g. 2 hours and 10 minutes is 130 minutes).</td>
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<td>14.</td>
<td>Convert hours and minutes to total number of seconds (e.g. 2 hours and 10 minutes is 7,800 seconds).</td>
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<td>15.</td>
<td>Convert minutes to hours and minutes (e.g. 200 minutes is 3 hours and 20 minutes).</td>
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<tr>
<td>16.</td>
<td>Read the number of credit hours in which a college student has enrolled and the cost of tuition per credit hour. Calculate and print the student’s tuition.</td>
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<td>17.</td>
<td>Read the quantity and price of an item at the grocery store and prints the extended price (i.e. price times the quantity).</td>
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<td>18.</td>
<td>Modify your solution to exercise #17 so that it also reads a sales tax rate as a percentage. The program must calculate and print the extended price, the sales tax on the extended price and the total of the two.</td>
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<td>19.</td>
<td>Read a patient’s weight in pounds and height in inches and prints his or her Body Mass Index (BMI) in U.S. customary units. Google <strong>BMI</strong> to find the formula; make sure it uses the same dimensions.</td>
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<tr>
<td>20.</td>
<td>Modify your solution to exercise #19 so that it reads the height in feet and inches and calculates the patient’s height in inches before calculating the BMI.</td>
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