***Coding Practice with Volume* Answers**

**Measurement**

**Unit 3 Line Master 3c**

1. Which code below accurately generates a list of prism volumes as the height   
of the prism is doubled each time?

**Code A**

length = 5

width = 5

height = 10

for i in range (0,10):

  baseArea = length \* width

  prismVolume = round(baseArea \* height)

  print (height, "\t", prismVolume)

  height = height \* 3

**Code B**

length = 5

width = 5

height = 10

for i in range (0,10):

  baseArea = length + width

  prismVolume = round(baseArea + height)

  print (height, "\t", prismVolume)

  height = height \* 2

**Code C**

length = 5

width = 5

height = 10

for i in range (0,10):

  baseArea = length \* width

  prismVolume = round(baseArea \* height)

  print (height, "\t", prismVolume)

  height = height \* 2

**Code C is the correct code. Code A triples the height. Code B uses addition   
instead of multiplication in the base area and volume formulas.**

***Coding Practice with Volume* Answers** (cont’d)

**Measurement**

**Unit 3 Line Master 3d**

2. For the correct code in Question 1, describe the output.

**Each time the height is doubled, the volume also doubles.**

**The output looks like this:**

**10 250**

**20 500**

**40 1000**

**80 2000**

**160 4000**

**320 8000**

**640 16000**

**1280 32000**

**2560 64000**

**5120 128000**