

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.**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Measurement  
Unit 3 Line Master 3d**

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

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:**

<b>10</b>	<b>250</b>
<b>20</b>	<b>500</b>
<b>40</b>	<b>1000</b>
<b>80</b>	<b>2000</b>
<b>160</b>	<b>4000</b>
<b>320</b>	<b>8000</b>
<b>640</b>	<b>16000</b>
<b>1280</b>	<b>32000</b>
<b>2560</b>	<b>64000</b>
<b>5120</b>	<b>128000</b>