

Name _____



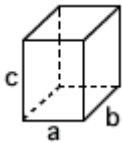
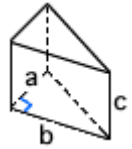
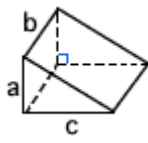
Date _____

Volume and Surface Area

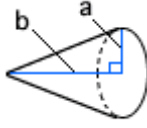
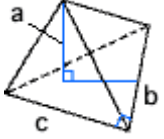
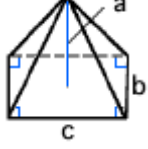
Fill in the missing values for a rectangular prism.

<p>1. length 12 width 7 height 10 surface area _____ volume _____</p>	<p>2. length 3 width 4.99 height _____ surface area 157.78 volume _____</p>	<p>3. length 13 width 6 height 3.49 surface area _____ volume _____</p>
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Find the volume of each solid to the nearest tenth. (use $\pi = 3.14$)

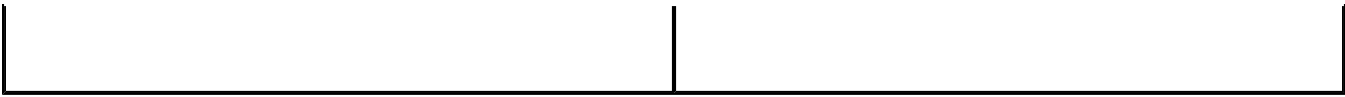
<p>4.  a = 42 ft b = 40 ft c = 78 ft</p>	<p>5.  a = 4.93 yd b = 5 yd c = 14 yd</p>	<p>6.  a = 5.14 in b = 8 in c = 13 in</p>
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Find the volume of each solid to the nearest tenth. (use $\pi = 3.14$)

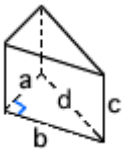
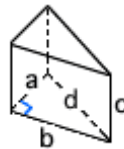
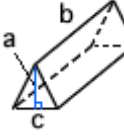
<p>7.  a = 2.4 km b = 7.9 km</p>	<p>8.  a = 3 cm b = 9 cm c = 8 cm</p>	<p>9.  a = 5 yd b = 6 yd c = 9 yd</p>
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Find the volume of each solid to the nearest tenth. (use $\pi = 3.14$)

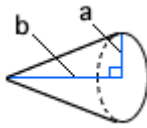


<p>10. cylinder: $r = 1$ km, $h = 22$ km</p>	<p>11. rectangular prism: $l = 15.1$ ft, $w = 20$ ft, $h = 12$ ft</p>
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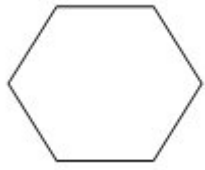
Find the surface area of each solid to the nearest tenth. (use $\pi = 3.14$)

<p>12. </p> <p>a = 28 cm b = 45 cm c = 3.6 cm d = 53 cm</p>	<p>13. </p> <p>a = 3 in b = 4 in c = 6.2 in d = 5 in</p>	<p>14. </p> <p>a = 15 mm b = 20 mm c = 16 mm d = 17 mm</p>
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Find the surface area of each solid to the nearest tenth. (use $\pi = 3.14$)

<p>15. </p> <p>a = 2.6 in b = 9.6 in</p>	<p>16. </p> <p>a = 17 mm</p>	<p>17. </p> <p>a = 1.44 cm</p>
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Complete.

<p>18. Mr. Bloop has a cylindrical water tank on his farm. It is eleven feet long and 1 foot 3 inches in diameter. Water flows out a valve in the bottom of the tank at a rate of 3.7 cubic feet per minute. At that rate, how long will it take to empty the tank when the tank is full?</p>	<p>19. A pillar from an ancient city was found buried in the ground. It had a cross-sectional shape like that shown in the figure. If the area of the cross section is three and seven hundredths square meters, and the pillar was fifteen and four tenths meters tall, what was the total volume of stone contained by the pillar?</p> 
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