

Volume of Cylinders, Cones and Spheres *fluency* **ANSWERS**



Find the volume of the cylinder to 1 decimal place. r is the radius, h the height.

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| <u>1</u> $r = 3 \text{ cm}, h = 10 \text{ cm}$ 282.7 cm^3 | <u>2</u> $r = 5 \text{ cm}, h = 4 \text{ cm}$ 314.2 cm^3 |
| <u>3</u> $r = 2 \text{ cm}, h = 15 \text{ cm}$ 188.5 cm^3 | <u>4</u> $r = 6 \text{ cm}, h = 7 \text{ cm}$ 791.7 cm^3 |
| <u>5</u> $r = 1.5 \text{ cm}, h = 8 \text{ cm}$ 56.5 cm^3 | <u>6</u> $r = 10 \text{ cm}, h = 2.5 \text{ cm}$ 785.4 cm^3 |



Find the volume of the cone to 1 decimal place

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| <u>7</u> $r = 3 \text{ cm}, h = 10 \text{ cm}$ 94.2 cm^3 | <u>8</u> $r = 4 \text{ cm}, h = 9 \text{ cm}$ 150.8 cm^3 |
| <u>9</u> $r = 6 \text{ cm}, h = 8 \text{ cm}$ 301.6 cm^3 | <u>10</u> $r = 2 \text{ cm}, h = 7 \text{ cm}$ 29.3 cm^3 |
| <u>11</u> $r = 5 \text{ cm}, h = 9 \text{ cm}$ 235.6 cm^3 | <u>12</u> $r = 2.5 \text{ cm}, h = 6 \text{ cm}$ 39.3 cm^3 |



Find the volume of the sphere to 1 decimal place

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| <u>13</u> $r = 3 \text{ cm}$ 113.1 cm^3 | <u>14</u> $r = 5 \text{ cm}$ 523.6 cm^3 |
| <u>15</u> $r = 2 \text{ cm}$ 33.5 cm^3 | <u>16</u> $r = 10 \text{ cm}$ 4188.8 cm^3 |
| <u>17</u> $r = 4 \text{ cm}$ 268.1 cm^3 | <u>18</u> $r = 7 \text{ cm}$ 1436.8 cm^3 |



Find the volume of the hemisphere to 1 decimal place

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| <u>19</u> $r = 3.5 \text{ cm}$ 89.8 cm^3 | <u>20</u> $r = 6 \text{ cm}$ 452.4 cm^3 |
| <u>21</u> $r = 4 \text{ cm}$ 134.0 cm^3 | <u>22</u> $r = 9 \text{ cm}$ 1526.8 cm^3 |
| <u>23</u> $r = 2.5 \text{ cm}$ 32.7 cm^3 | <u>24</u> $r = 12 \text{ cm}$ 3619.1 cm^3 |



Give the volume in terms of π

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| <u>25</u> cylinder, $r = 2 \text{ cm}, h = 5 \text{ cm}$
$20\pi \text{ cm}^3$ | <u>26</u> cone, $r = 3 \text{ cm}, h = 4 \text{ cm}$
$12\pi \text{ cm}^3$ |
| <u>27</u> sphere, $r = 3 \text{ cm}$
$36\pi \text{ cm}^3$ | <u>28</u> hemisphere, $r = 6 \text{ cm}$
$144\pi \text{ cm}^3$ |
| <u>29</u> cylinder, $r = 4 \text{ cm}, h = 0.5 \text{ cm}$
$8\pi \text{ cm}^3$ | <u>30</u> cone, $r = 6 \text{ cm}, h = 10 \text{ cm}$
$120\pi \text{ cm}^3$ |