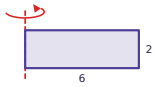
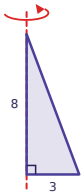
**Task card 1** Solids of Revolution

A 6 by 2 rectangle is rotated about its side of length 2. Find the volume of the solid in terms of π.



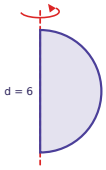

**Task card 2** Solids of Revolution

A right triangle with legs 3 and 8 is rotated about the leg of length 8. Find the volume of the solid in terms of π.



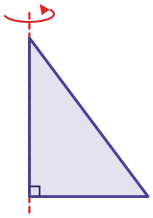

**Task card 3** Solids of Revolution

A semicircle with diameter 6 is rotated about its diameter. Find the volume of the solid in terms of π.



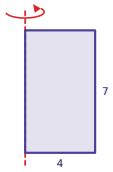

**Task card 4** Solids of Revolution

A right triangle is rotated all the way around one of its legs. What solid is formed?



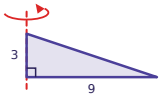
**Task card 5** Solids of Revolution

A 4 by 7 rectangle is rotated about its side of length 7. Find the volume of the solid in terms of π.



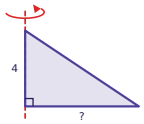

**Task card 6** Solids of Revolution

A right triangle with legs 9 and 3 is rotated about the leg of length 3. Find the volume of the solid in terms of π.



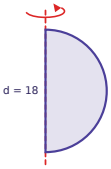
**Task card 7** Solids of Revolution

A right triangle is rotated about its leg of length 4, making a cone with volume 48π. How long is the other leg?



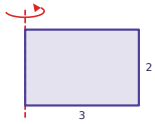

**Task card 8** Solids of Revolution

A semicircle with diameter 18 is rotated about its diameter. Find the volume of the solid in terms of π.



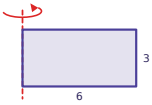

**Task card 9** Solids of Revolution

A 3 by 2 rectangle is rotated about its side of length 2. Find the volume of the solid in terms of π.



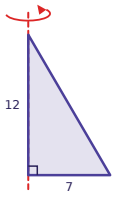

**Task card 10** Solids of Revolution

A 6 by 3 rectangle is rotated about its side of length 3. Find the volume of the solid in terms of π.



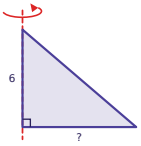

**Task card 11** Solids of Revolution

A right triangle with legs 7 and 12 is rotated about the leg of length 12. Find the volume of the solid in terms of π.



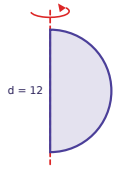

**Task card 12** Solids of Revolution

A right triangle is rotated about its leg of length 6, making a cone with volume 98π. How long is the other leg?



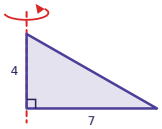
**Task card 13** Solids of Revolution

A semicircle with diameter 12 is rotated about its diameter. Find the volume of the solid in terms of π.



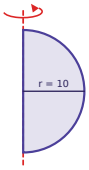

**Task card 14** Solids of Revolution

A right triangle with legs 7 and 4 is rotated about the leg of length 4. Find the volume of the solid to the nearest tenth.



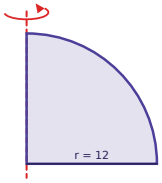

**Task card 15** Solids of Revolution

A semicircle with radius 10 is rotated about its diameter. Find the volume of the solid to the nearest tenth.



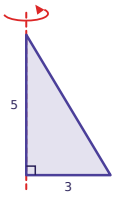

**Task card 16** Solids of Revolution

A quarter circle with radius 12 is rotated about one of its straight edges. Find the volume of the solid in terms of π.



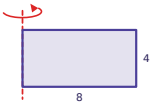

**Task card 17** Solids of Revolution

A right triangle with legs 3 and 5 is rotated about the leg of length 5. Find the volume of the solid in terms of π.



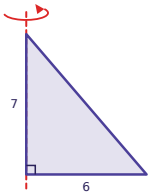

**Task card 18** Solids of Revolution

A 8 by 4 rectangle is rotated about its side of length 4. Find the volume of the solid in terms of π.



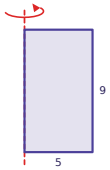
**Task card 19** Solids of Revolution

A right triangle with legs 6 and 7 is rotated about the leg of length 7. Find the volume of the solid in terms of π.



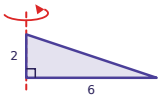

**Task card 20** Solids of Revolution

A 5 by 9 rectangle is rotated about its side of length 9. Find the volume of the solid in terms of π.



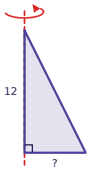

**Task card 21** Solids of Revolution

A right triangle with legs 6 and 2 is rotated about the leg of length 2. Find the volume of the solid in terms of π.



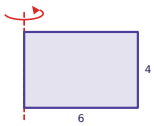

**Task card 22** Solids of Revolution

A right triangle is rotated about its leg of length 12, making a cone with volume 144π. How long is the other leg?



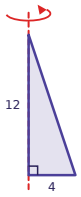

**Task card 23** Solids of Revolution

A 6 by 4 rectangle is rotated about its side of length 4. Find the volume of the solid in terms of π.




**Task card 24** Solids of Revolution

A right triangle with legs 4 and 12 is rotated about the leg of length 12. Find the volume of the solid in terms of π.



# Solids of Revolution Task Cards

Recording sheet · Grade 10 · Name a solid with one word: cylinder, cone, sphere or hemisphere. Give volumes in terms of π, like 36π, unless the problem says to round; then use the π key and round to the nearest tenth (like 52.4). Other lengths are numbers.

Scan to check your answers

Name: _____ Date: _____

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 |

# Solids of Revolution Task Cards: Answer Key

Grade 10 · Medium

The answers online

| | | |
|---|---|---|
| **1.** 72π | **2.** 24π | **3.** 36π |
| **4.** cone | **5.** 112π | **6.** 81π |
| **7.** 6 | **8.** 972π | **9.** 18π |
| **10.** 108π | **11.** 196π | **12.** 7 |
| **13.** 288π | **14.** 205.3 | **15.** 4188.8 |
| **16.** 1152π | **17.** 15π | **18.** 256π |
| **19.** 84π | **20.** 225π | **21.** 24π |
| **22.** 6 | **23.** 144π | **24.** 64π |