解答

1. 立体の体積と表面積（回転）1

(1) $V = 75\pi\text{cm}^3$ (235.5cm^3)

(2) $V = 3\pi\text{cm}^3$ (9.42cm^3)
$S = 8\pi\text{cm}^2$ (25.12cm^3)
(3) $V = 54\pi\text{cm}^3$ (169.56cm^3)
$S = 54\pi\text{cm}^2$ (169.56cm^3)

2. 立体の体積と表面積（回転）1

(1) $V = 144\pi\text{cm}^3$ (452.16cm^3)

(2) $V = 45\pi\text{cm}^3$ (141.3cm^3)
$S = 48\pi\text{cm}^2$ (150.72cm^3)
(3) $V = 36\pi\text{cm}^3$ (113.04cm^3)
$S = 42\pi\text{cm}^2$ (131.88cm^3)

3. 立体の体積と表面積（回転）1

(1) $V = 48\pi\text{cm}^3$ (150.72cm^3)

(2) $V = 63\pi\text{cm}^3$ (197.82cm^3)
$S = 60\pi\text{cm}^2$ (188.4cm^3)
(3) $V = 16\pi\text{cm}^3$ (50.24cm^3)
$S = 24\pi\text{cm}^2$ (75.36cm^3)

4. 立体の体積と表面積（回転）1

(1) $V = 405\pi\text{cm}^3$ (1271.7cm^3)

(2) $V = 20\pi\text{cm}^3$ (62.8cm^3)
$S = 28\pi\text{cm}^2$ (87.92cm^3)
(3) $V = 2\pi\text{cm}^3$ (6.28cm^3)
$S = 6\pi\text{cm}^2$ (18.84cm^3)

5. 立体の体積と表面積（回転）1

(1) $V = 96\pi\text{cm}^3$ (301.44cm^3)

(2) $V = 12\pi\text{cm}^3$ (37.68cm^3)
$S = 20\pi\text{cm}^2$ (62.8cm^3)
(3) $V = 54\pi\text{cm}^3$ (169.56cm^3)
$S = 54\pi\text{cm}^2$ (169.56cm^3)

6. 立体の体積と表面積（回転）1

(1) $V = 72\pi\text{cm}^3$ (226.08cm^3)

(2) $V = 45\pi\text{cm}^3$ (141.3cm^3)
$S = 48\pi\text{cm}^2$ (150.72cm^3)
(3) $V = 3\pi\text{cm}^3$ (9.42cm^3)
$S = 8\pi\text{cm}^2$ (25.12cm^3)

7. 立体の体積と表面積（回転）1

(1) $V = 12\pi\text{cm}^3$ (37.68cm^3)

(2) $V = 63\pi\text{cm}^3$ (197.82cm^3)
$S = 60\pi\text{cm}^2$ (188.4cm^3)
(3) $V = 36\pi\text{cm}^3$ (113.04cm^3)
$S = 42\pi\text{cm}^2$ (131.88cm^3)

8. 立体の体積と表面積（回転）1

(1) $V = 576\pi\text{cm}^3$ (1808.64cm^3)

(2) $V = 20\pi\text{cm}^3$ (62.8cm^3)
$S = 28\pi\text{cm}^2$ (87.92cm^3)
(3) $V = 2\pi\text{cm}^3$ (6.28cm^3)
$S = 6\pi\text{cm}^2$ (18.84cm^3)

9. 立体の体積と表面積（回転）1

(1) $V = 324\pi\text{cm}^3$ (1017.36cm^3)

(2) $V = 16\pi\text{cm}^3$ (50.24cm^3)
$S = 24\pi\text{cm}^2$ (75.36cm^3)
(3) $V = 54\pi\text{cm}^3$ (169.56cm^3)
$S = 54\pi\text{cm}^2$ (169.56cm^3)

10. 立体の体積と表面積（回転）1

(1) $V = 156\pi\text{cm}^3$ (489.84cm^3)

(2) $V = 12\pi\text{cm}^3$ (37.68cm^3)
$S = 20\pi\text{cm}^2$ (62.8cm^3)
(3) $V = 3\pi\text{cm}^3$ (9.42cm^3)
$S = 8\pi\text{cm}^2$ (25.12cm^3)

11. 立体の体積と表面積（回転）1

(1) $V = 672\pi\text{cm}^3$ (2110.08cm^3)

(2) $V = 45\pi\text{cm}^3$ (141.3cm^3)
$S = 48\pi\text{cm}^2$ (150.72cm^3)
(3) $V = 63\pi\text{cm}^3$ (197.82cm^3)
$S = 60\pi\text{cm}^2$ (188.4cm^3)

12. 立体の体積と表面積（回転）1

(1) $V = 75\pi\text{cm}^3$ (235.5cm^3)

(2) $V = 36\pi\text{cm}^3$ (113.04cm^3)
$S = 42\pi\text{cm}^2$ (131.88cm^3)
(3) $V = 2\pi\text{cm}^3$ (6.28cm^3)
$S = 6\pi\text{cm}^2$ (18.84cm^3)

13. 立体の体積と表面積（回転）1

(1) $V = 21\pi\text{cm}^3$ (65.94cm^3)

(2) $V = 16\pi\text{cm}^3$ (50.24cm^3)
$S = 24\pi\text{cm}^2$ (75.36cm^3)

(3) $V = 54\pi\text{cm}^3$ (169.56cm^3)
$S = 54\pi\text{cm}^2$ (169.56cm^3)

14. 立体の体積と表面積（回転）1

(1) $V = 147\pi\text{cm}^3$ (461.58cm^3)

(2) $V = 12\pi\text{cm}^3$ (37.68cm^3)
$S = 20\pi\text{cm}^2$ (62.8cm^3)

(3) $V = 3\pi\text{cm}^3$ (9.42cm^3)
$S = 8\pi\text{cm}^2$ (25.12cm^3)

15. 立体の体積と表面積（回転）1

(1) $V = 624\pi\text{cm}^3$ (1959.36cm^3)

(2) $V = 45\pi\text{cm}^3$ (141.3cm^3)
$S = 48\pi\text{cm}^2$ (150.72cm^3)

(3) $V = 20\pi\text{cm}^3$ (62.8cm^3)
$S = 28\pi\text{cm}^2$ (87.92cm^3)

16. 立体の体積と表面積（回転）1

(1) $V = 72\pi\text{cm}^3$ (226.08cm^3)

(2) $V = 63\pi\text{cm}^3$ (197.82cm^3)
$S = 60\pi\text{cm}^2$ (188.4cm^3)

(3) $V = 36\pi\text{cm}^3$ (113.04cm^3)
$S = 42\pi\text{cm}^2$ (131.88cm^3)