

- (1) a) $8\pi \text{ cm} / 12\pi \text{ cm}^2$
b) $12\pi \text{ cm} / 17.5\pi \text{ cm}^2$
c) $(11\pi + 4)\text{ cm} / 30.25\pi \text{ cm}^2$
d) $10\pi \text{ cm} / 12.5\pi \text{ cm}^2$

- (2) a) $33.13 \text{ cm} / 82.27 \text{ cm}^2$
b) $30.85 \text{ cm} / 56.55 \text{ cm}^2$
c) $31.42 \text{ cm} / 25.13 \text{ cm}^2$
d) $23.34 \text{ cm} / 35.71 \text{ cm}^2$
e) $21 \text{ cm} / 44.20 \text{ cm}^2$

(3) 8.83 cm^2

(4) 452.39 m^2