Volume and Surface Area of Cones

Find the volume and total surface area of each of these cones.

(a)
10 cm
8 cm
6 cm

(b)
9.2 cm
8.5 cm
3.5 cm

(c)
1.3 m
1.2 m
1 m

(d)
25 mm
24 mm
7 mm
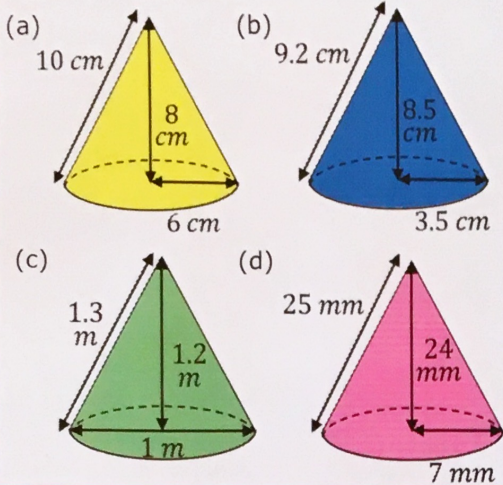
(a) $V = 301.6 \, cm^3$
$A = 301.6 \, cm^2$

(b) $V = 109.0 \, cm^3$
$A = 139.6 \, cm^2$
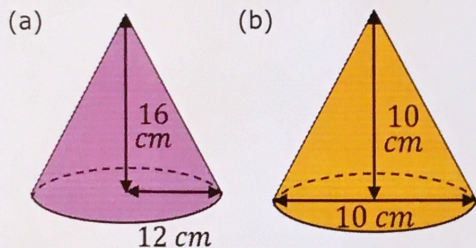
(c) $V = 0.31 \, m^3$
$A = 2.83 \, m^2$

(d) $V = 1231.5 \, mm^3$
$A = 703.7 \, mm^2$

Find the slanted height and curved surface area of these cones.

(a)
16 cm
12 cm

(b)
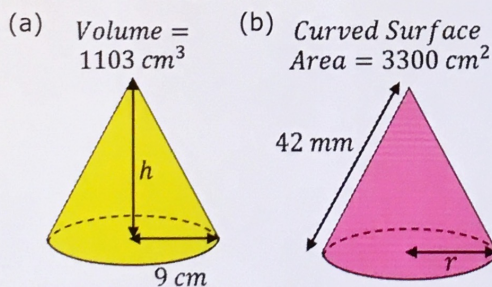10 cm
10 cm

(a) $l = 20 \, cm$
$A = 754.0 \, cm^2$

(b) $l = 11.18 \, cm$
$A = 175.6 \, cm^2$

Find the missing lengths.

(a) Volume = $1103 \, cm^3$
h
9 cm

(b) Curved Surface Area = $3300 \, cm^2$
42 mm
r

(a) $13 \, cm$

(b) $25 \, cm$

(a) A cone has a slanted height of 26 cm and a curved surface area of $260\pi \, cm^2$. Find its volume.

(b) A cone has a radius of 8.5 cm and a volume of $1059 \, cm^3$. Find its total surface area.

(a) $r = 10 \, cm$ $h = 24 \, cm$
$V = 800\pi \, cm^3$

(b) $h = 14 \, cm$ $l = 16.38 \, cm$
$A = 664.4 \, cm^2$