

Surface Area Practice

Find the lateral area of each figure. Round your answers to the nearest hundredth, if necessary. Leave your answers in terms of π for answers that contain π .

- 1) A rectangular prism measuring 5 km and 12 km along the base and 8 km tall.

- 2) A cone with radius 10 mi and a slant height of 22.4 mi.

- 3) A cylinder with a radius of 9 yd and a height of 10 yd.

- 4) A pyramid with slant height 9.6 in whose triangular base measures 12 in on each side. Each altitude of the base measures 10.4 in.

- 5) A prism 7 m tall with a right triangle for a base with side lengths 6 m, 8 m, and 10 m.

- 6) A cylinder with a diameter of 4 km and a height of 11 km.

- 7) A square pyramid measuring 8 cm along the base with a slant height of 8.1 cm.

- 8) A pyramid with slant height 11 km whose triangular base measures 3 km on each side. Each altitude of the base measures 2.6 km.

- 9) A cone with diameter 16 km and a slant height of 17.9 km.

- 10) A prism 10 km tall. The base is a trapezoid whose parallel sides measure 12 km and 6 km. The other sides are each 7 km. The altitude of the trapezoid measures 6.3 km.

Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary. Leave your answers in terms of π for answers that contain π .

- 11) A sphere with a diameter of 21.6 ft.

- 12) A prism 4 mi tall with a right triangle for a base with side lengths 6 mi, 8 mi, and 10 mi.

- 13) A cylinder with a radius of 6 ft and a height of 10 ft.

- 14) A square prism measuring 11 mi along each edge of the base and 9 mi tall.

- 15) A pyramid with slant height 4.2 ft whose triangular base measures 4 ft on each side. Each altitude of the base measures 3.5 ft.

- 16) A square pyramid measuring 5 cm along the base with a slant height of 7.4 cm.

- 17) A hexagonal prism 6 mi tall with a regular base measuring 11 mi on each edge and an apothem of length 9.5 mi.

- 18) A cone with radius 12 in and a slant height of 26.8 in.

- 19) A hexagonal prism 6 km tall with a regular base measuring 8 km on each edge and an apothem of length 6.9 km.

- 20) A pyramid with slant height 11.5 m whose triangular base measures 12 m on each side. Each altitude of the base measures 10.4 m.

Surface Area Practice

Find the lateral area of each figure. Round your answers to the nearest hundredth, if necessary. Leave your answers in terms of π for answers that contain π .

- 1) A rectangular prism measuring 5 km and 12 km along the base and 8 km tall.

$$272 \text{ km}^2$$

- 2) A cone with radius 10 mi and a slant height of 22.4 mi.

$$224\pi \text{ mi}^2$$

- 3) A cylinder with a radius of 9 yd and a height of 10 yd.

$$180\pi \text{ yd}^2$$

- 4) A pyramid with slant height 9.6 in whose triangular base measures 12 in on each side. Each altitude of the base measures 10.4 in.

$$172.8 \text{ in}^2$$

- 5) A prism 7 m tall with a right triangle for a base with side lengths 6 m, 8 m, and 10 m.

$$168 \text{ m}^2$$

- 6) A cylinder with a diameter of 4 km and a height of 11 km.

$$44\pi \text{ km}^2$$

- 7) A square pyramid measuring 8 cm along the base with a slant height of 8.1 cm.

$$129.6 \text{ cm}^2$$

- 8) A pyramid with slant height 11 km whose triangular base measures 3 km on each side. Each altitude of the base measures 2.6 km.

$$49.5 \text{ km}^2$$

- 9) A cone with diameter 16 km and a slant height of 17.9 km.

$$143.2\pi \text{ km}^2$$

- 10) A prism 10 km tall. The base is a trapezoid whose parallel sides measure 12 km and 6 km. The other sides are each 7 km. The altitude of the trapezoid measures 6.3 km.

$$320 \text{ km}^2$$

Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary. Leave your answers in terms of π for answers that contain π .

11) A sphere with a diameter of 21.6 ft.

$$466.56\pi \text{ ft}^2$$

12) A prism 4 mi tall with a right triangle for a base with side lengths 6 mi, 8 mi, and 10 mi.

$$144 \text{ mi}^2$$

13) A cylinder with a radius of 6 ft and a height of 10 ft.

$$192\pi \text{ ft}^2$$

14) A square prism measuring 11 mi along each edge of the base and 9 mi tall.

$$638 \text{ mi}^2$$

15) A pyramid with slant height 4.2 ft whose triangular base measures 4 ft on each side. Each altitude of the base measures 3.5 ft.

$$32.2 \text{ ft}^2$$

16) A square pyramid measuring 5 cm along the base with a slant height of 7.4 cm.

$$99 \text{ cm}^2$$

17) A hexagonal prism 6 mi tall with a regular base measuring 11 mi on each edge and an apothem of length 9.5 mi.

$$1023 \text{ mi}^2$$

18) A cone with radius 12 in and a slant height of 26.8 in.

$$465.6\pi \text{ in}^2$$

19) A hexagonal prism 6 km tall with a regular base measuring 8 km on each edge and an apothem of length 6.9 km.

$$619.2 \text{ km}^2$$

20) A pyramid with slant height 11.5 m whose triangular base measures 12 m on each side. Each altitude of the base measures 10.4 m.

$$269.4 \text{ m}^2$$