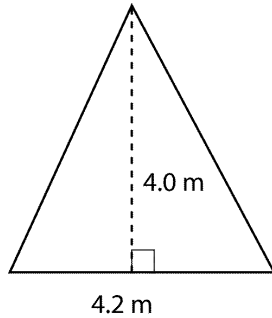


### Unit 3 Surface Area and Volume – Practice Test Multiple Choice

#### MULTIPLE CHOICE

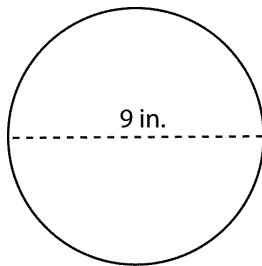
1. Calculate the area. If necessary, round to one decimal place.

- a.  $16.8 \text{ m}^2$
- b.  $8.4 \text{ m}^2$
- c.  $4.1 \text{ m}^2$
- d.  $24.6 \text{ m}^2$



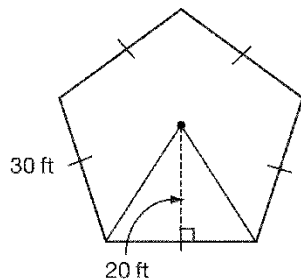
2. Calculate the area to the nearest square inch.

- a.  $254 \text{ in}^2$
- b.  $64 \text{ in}^2$
- c.  $28 \text{ in}^2$
- d.  $367 \text{ in}^2$



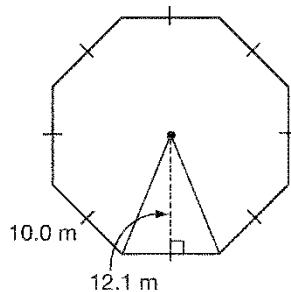
3. What is the area of this regular pentagon?

- a.  $1500 \text{ ft}^2$
- b.  $600 \text{ ft}^2$
- c.  $3000 \text{ ft}^2$
- d.  $4500 \text{ ft}^2$



4. What is the area of this regular octagon?

- a.  $960 \text{ m}^2$
- b.  $484 \text{ m}^2$
- c.  $380 \text{ m}^2$
- d.  $60.5 \text{ m}^2$

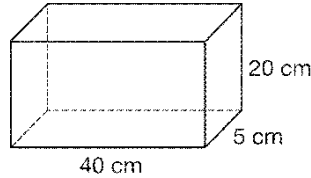


5. What is the **surface area** of a cube that measures 8 cm on each side?

- a.  $64 \text{ cm}^2$
- b.  $512 \text{ cm}^2$
- c.  $384 \text{ cm}^2$
- d.  $220 \text{ cm}^2$

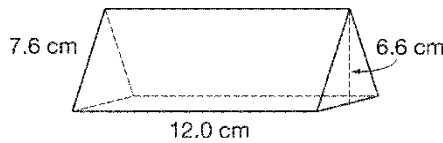
6. What is the **surface area** of this rectangular prism?

- a.  $4000 \text{ cm}^2$
- b.  $220 \text{ cm}^2$
- c.  $65 \text{ cm}^2$
- d.  $2200 \text{ cm}^2$



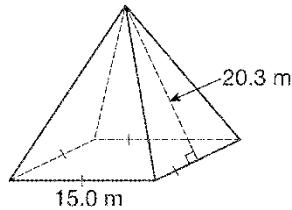
7. What is the **surface area** of this triangular prism if all three sides of the triangles are 7.6 cm long?

- a.  $301.0 \text{ cm}^2$
- b.  $323.8 \text{ cm}^2$
- c.  $647.5 \text{ cm}^2$
- d.  $601.9 \text{ cm}^2$



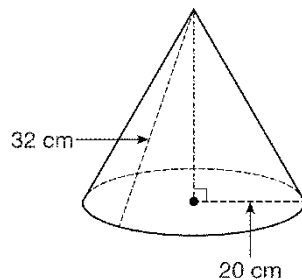
8. What is the **surface area** of this square pyramid? Round your answer to one decimal place.

- a.  $1024.4 \text{ m}^2$
- b.  $834.0 \text{ m}^2$
- c.  $285.0 \text{ m}^2$
- d.  $1443.0 \text{ m}^2$



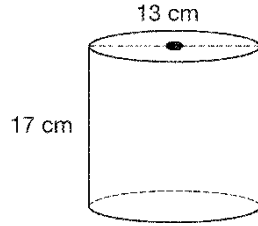
9. What is the **surface area** of this cone? Round your answer to the nearest whole number.

- a.  $1256 \text{ cm}^2$
- b.  $1980 \text{ cm}^2$
- c.  $3267 \text{ cm}^2$
- d.  $2406 \text{ cm}^2$



10. What is the **surface area** of this cylinder? Round your answer to one decimal place.

- a.  $612.3 \text{ cm}^2$
- b.  $1224.6 \text{ cm}^2$
- c.  $319.8 \text{ cm}^2$
- d.  $959.8 \text{ cm}^2$



11. A sphere has a diameter of 12 cm. What is the sphere's **surface area**, to the nearest square centimetre?

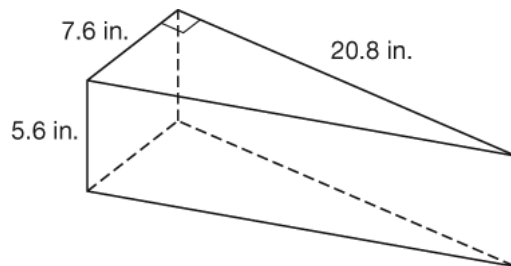
- a.  $1131 \text{ cm}^2$
- b.  $905 \text{ cm}^2$
- c.  $1810 \text{ cm}^2$
- d.  $452 \text{ cm}^2$

12. What is the **volume** of a cube that measures 12 inches on each side?

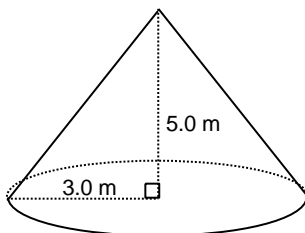
- a.  $1728 \text{ in}^3$
- b.  $968 \text{ in}^3$
- c.  $2120 \text{ in}^3$
- d.  $864 \text{ in}^3$

13. What is the **volume** of this prism, to the nearest tenth of a cubic inch?

- a.  $424.3 \text{ in}^3$
- b.  $624.4 \text{ in}^3$
- c.  $442.6 \text{ in}^3$
- d.  $262.4 \text{ in}^3$



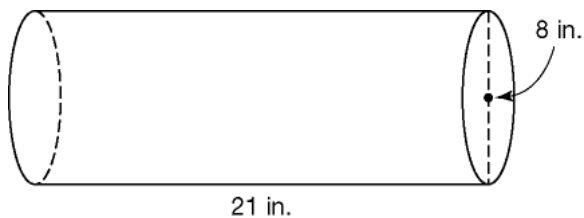
14. Calculate the **volume** of this right cone to the nearest tenth of a cubic metre.



- a.  $141.4 \text{ m}^3$
- b.  $55.0 \text{ m}^3$
- c.  $49.3 \text{ m}^3$
- d.  $47.1 \text{ m}^3$

15. What is the **volume** of this cylinder, to the nearest cubic inch?

- a.  $4222 \text{ in}^3$
- b.  $264 \text{ in}^3$
- c.  $1056 \text{ in}^3$
- d.  $1344 \text{ in}^3$



16. A ten-pin bowling ball has a radius of approximately 4.25 in. Determine the **volume** of the ball to the nearest cubic inch.

- a.  $322 \text{ in}^3$
- b.  $5642 \text{ in}^3$
- c.  $227 \text{ in}^3$
- d.  $2572 \text{ in}^3$

## Unit 3 Surface Area and Volume - Practice Test ANSWERS

### MULTIPLE CHOICE

1. B
2. B
3. A
4. B
5. C
6. D
7. B
8. B
9. C
10. D
11. D
12. A
13. C
14. D
15. C
16. A