

ANSWER KEY (Chapter 9 Review Packet: Surface Area and Volume)

Introduction to Three-Dimensional Figures:

1. Triangle; Triangular Pyramid
2. Rectangle; Rectangular Prism
3. Rectangle; Rectangular Pyramid
4. Hexagon; Hexagonal Prism
5. Triangle; Triangular Prism
6. Pentagon; Pentagonal Pyramid
7. Not a polyhedron; Cone
8. Polyhedron; Octagonal Prism
9. Polyhedron; Rectangular Pyramid

Surface area of prisms and cylinders:

1. 96 square feet
2. 207.2 square cm
3. 288 square inches
4. 156 square meters
5. 62 square feet
6. 314 square meters

Surface area of pyramids and cones:

1. 64 square ft
2. 50.2 square cm
3. 146 square cm
4. 204.1 square in
5. 242.6 square m
6. 87.4 square m

Volume of prisms and cylinders:

1. 180 cubic ft
2. 452.2 cubic in
3. 216 cubic in
4. 120 cubic m
5. 112 cubic in
6. 435.6 cubic ft

Volume of pyramids and cones:

1. 75.4 cubic cm
2. 15 cubic m
3. 339.1 cubic ft
4. 72 cubic in
5. 62.5 cubic ft
6. 194.2 cubic cm

Spheres:

1. SA = 314 square in
V = 523.3 cubic in
2. SA = 803.8 square ft
V = 2143.6 cubic ft
3. SA = 211.1 square cm
V = 288.5 cubic cm
4. SA = 18.1 square ft
V = 7.2 cubic ft
5. SA = 530.7 square m
V = 1149.8 cubic m
6. SA = 72.3 square m
V = 57.9 cubic m