SECTION 31.1  The Milky Way Galaxy, continued

In your textbook, read about the mass of the Milky Way.
Use each of the terms below just once to complete the passage.

2.6 million gas clouds  100 billion stellar remnants  center  dark matter  galaxy halo  supermassive black hole

The mass located within the circle of the Sun's orbit through the galaxy is about
(14) times the mass of the Sun. Because the Sun is of average
mass, astronomers have concluded there are about 100 billion stars within the disk
of the (15).

Astronomers have found evidence that much more mass exists in the outer galaxy. The
stars and (16) that orbit in the outer disk are moving faster than
they would if the galaxy's mass were concentrated near the (17) of the disk. Evidence indicates that as much as 90 percent of the galaxy's mass is
contained in the (18). This mass is not observed in the form
of normal stars, and astronomers hypothesize that some of this unseen matter is in the
form of dim (19), such as white dwarfs, neutron stars, and black
holes. The remainder of this mass, usually called (20), is a mystery.

Studies of the motion of stars that orbit close to Sagittarius A* indicate that this area
has about (21) times the mass of the Sun, but is smaller than our
solar system. Astronomers believe that Sagittarius A* is a (22) that glows brightly because of the hot gas surrounding it and spiraling into it.