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Stadium and Arena Capacities

The following table shows the seating capacities of a number of fictitious stadiums and arenas. Use the data in the table to complete pages 320–322 and pages 325–328.

| Stadiums and Arenas | | |
|----------------------|---------------------|--|
| Grand Canyon Stadium | Tempe, AZ | 73,521 |
| Garden State Stadium | East Rutherford, NJ | 78,741 |
| Gopherdome | Minneapolis, MN | 64,035 (football) 55,883 (baseball) 40,000 (concerts) |
| Empire Stadium | New York, NY | 57,545 |
| Sunshine Stadium | Los Angeles, CA | 56,000 |
| Cajundome | New Orleans, LA | 69,703 (football) 20,000 (concerts) 55,675 (basketball) 63,525 (baseball) |
| Patriot Park | Boston, MA | 33,993 |
| Copper State Arena | Phoenix, AZ | 19,023 |
| Jersey Arena | East Rutherford, NJ | 20,049 |
| Big Apple Arena | New York, NY | 19,763 |
| Minutemen Center | Boston, MA | 18,624 (basketball) 19,600 (concerts) |
| Badger Arena | Milwaukee, WI | 18,600 (basketball) 20,000 (concerts) |
| Golden State Arena | Los Angeles, CA | 20,000 |



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Filling Up and Emptying

Use the data about stadium and arena capacities on page 319 to solve Problems 1–10 on pages 320–322. Remember to show the equations you use to solve the problems. You should be able to do most of these problems mentally.

In Problems 1–3, people are going to a sold-out basketball game at the Golden State Arena.

The game starts at 7:30 P.M. At 7:00 P.M., 9,000 people are in their seats. How many people are not yet in their seats?

- 2
- a. At 7:45 P.M., 5,000 more people have arrived and are in their seats. How many people are now in their seats?
- b. How many people are not yet in their seats?

3 At 8:00 р.м., all but 1,500 people are in their seats. How many people are now in their seats?



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Filling Up and Emptying

In Problems 4–6, people are going to a football game at the Gopherdome.



The game is sold out. At the end of the third quarter, the game is not close, so 10,000 people go home. How many people are still in the stadium?



With 10 minutes left in the game, 20,000 more people go home. How many people are still in the stadium?

6 At the end of the game, another 25,000 people leave. The others stay to wait for the traffic to clear. How many people are still in the stadium?



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Filling Up and Emptying

In Problems 7–10, people are going to a football game at the Cajundome.



Of the available tickets, there were 2,500 tickets that were not sold. How many tickets were sold?



At 6:00 P.M., 10,000 people were in the Cajundome. How many people were not yet in the stadium? (Remember, not all seats were sold.)



- a. At 7:00 р.м., 37,800 more people had come into the stadium. How many people were in the stadium at that time?
- b. How many people had not shown up yet? (Remember, not all seats were sold.)
- Eventually, everyone who had a ticket had come to the game. At halftime, 25,000 people were not in their seats. How many people were still seated?