

MATH PROBLEMS

1. For an American football field shown, what is the length of the perimeter?

2. What is the area of the football field?

3. For a Premier League soccer pitch shown, what is the length of the perimeter?

4. What is the area of a soccer pitch?

5. Which field has more area, and by how much?

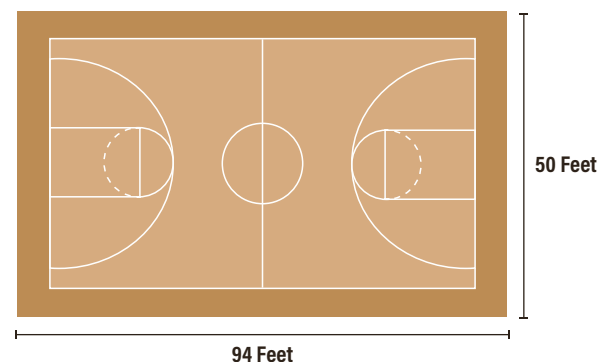
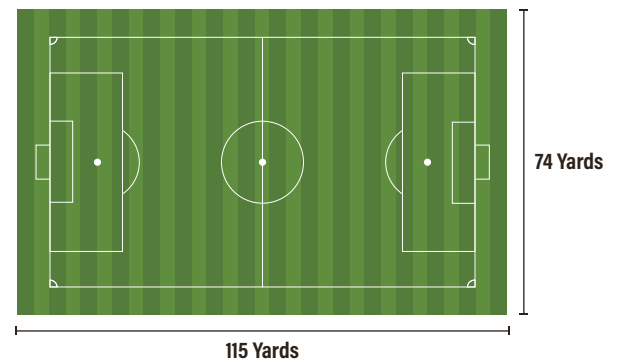
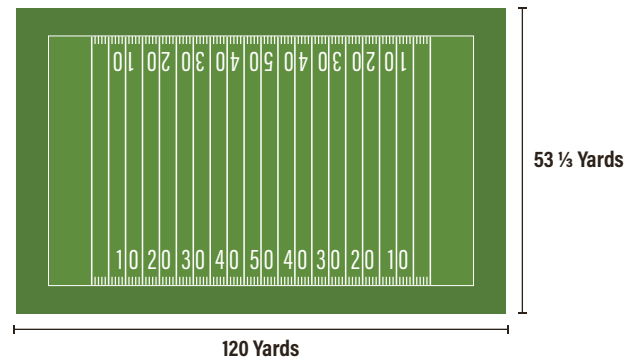
6. What percentage is the pitch larger than the football field?

7. For an NBA basketball court, with the dimensions shown, what is the perimeter in feet and yards?

8. What is the area of an NBA basketball court in feet and yards?

9. What percentage is the football field larger than an NBA court?

10. What percentage is the soccer pitch larger than an NBA court?



MATH ANSWERS

1. 346 $\frac{2}{3}$ yards

$$120 \text{ yards} + 120 \text{ yards} + 53 \frac{1}{3} \text{ yards} + 53 \frac{1}{3} \text{ yards} = 346 \frac{2}{3} \text{ yards}$$

2. 6,400 yards

$$\text{Length} \times \text{Width} = 120 \text{ yards} \times 53 \frac{1}{3} \text{ yards} = 6,400 \text{ yards}$$

3. 378 yards

$$115 \text{ yards} + 115 \text{ yards} + 74 \text{ yards} + 74 \text{ yards} = 378 \text{ yards}$$

4. 8,510 yards

$$\text{Length} \times \text{Width} = 115 \text{ yards} \times 74 \text{ yards} = 8,510 \text{ yards}$$

5. Soccer Pitch, 2,110 yards larger

$$8,510 \text{ (soccer pitch)} - 6,400 \text{ (football field)} = 2,110 \text{ yards} - \text{The soccer pitch is larger}$$

6. 32.9% larger

$$(8,510 \text{ yards} - 6,400 \text{ yards}) / 6,400 \text{ yards} \times 100 = (2,110 / 6,400) = 32.9\% \text{ larger}$$

7. 288 feet or 96 yards

$$94 \text{ feet} + 94 \text{ feet} + 50 \text{ feet} + 50 \text{ feet} = 288 \text{ feet or } 96 \text{ yards (3 feet} = 1 \text{ yard)}$$

8. 4,700 ft²

$$94 \text{ feet} \times 50 \text{ feet} = 4,700 \text{ ft}^2 \text{ or } 1,566 \frac{2}{3} \text{ yards}$$

9. 308.5% larger

$$(6,400 \text{ yards} / 1,566 \frac{2}{3} \text{ yards}) / 1,566 \frac{2}{3} \text{ yards} = 308.5\% \text{ larger}$$

10. 443.2% larger

$$(8,510 \text{ yards} - 1,566 \frac{2}{3} \text{ yards}) / 1,566 \frac{2}{3} \text{ yards} = 443.2\% \text{ larger}$$