



**Unit 4:**  
**Lesson 04**

**\*More area, perimeter, and percent problems**

**Assignment:**

1. A certain triangle has sides  $z + 1$ ,  $z + 2$ , and  $z + 8$ . What is  $z$  if the perimeter is 44?

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2. If the area of a semicircle is  $46\pi$ , what is its radius?

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3. 146 is what percent of 192?

4. What is 1.1% of .016?

5. The sides of a rectangle are all exactly equal and its area is 144. How long are the sides?

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6. Joe receives a commission for selling used cars. If he was paid \$65 for the sale of an old clunker, what was his commission rate if the selling price of the car was \$475?

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7. The length of one base of a trapezoid is 7 inches while its area is 57 inches<sup>2</sup>. Find the length of the other base if the height is 6 inches. ( The area of a trapezoid is  $.5(b_1 + b_2)h$ . )

\*8. The length of a rectangle is 8 and its width is 2 less than its length. What percentage of the area of the rectangle is the width?

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\*9. Find the length of a side of a cube if its total surface area is  $54 \text{ cm}^2$ .

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10. If the circumference of a circle is 110 inches, what is the diameter?

11. If the Bearcats won 75% of their games (they won 15 games) over the past two years, what was the total number of games they played in those two years?

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12. The area of a triangle is  $182 \text{ cm}^2$ . What must its height be if its base is 42 cm?

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13. What is the radius of a circle whose area is 19?

14. What is 125% of 536?

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15. Convert 117.20% to a decimal fraction.

16. Convert  $\frac{126}{179}$  to a percent.

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17. 11.2 is what percent of 146.9?

18. What is .18% of 4000?