

Section 2.4 Application Examples.

Unknown numbers

1. If 4 is multiplied by a number decreased by 7, the product is 100. Find the number.
2. If 5 is added to the product of 9 and a number, the result is 19 less than the number. Find the number.

Sums of Quantities

3. In the 2004 Olympic Games in Athens, Greece, the United States won 40 more medals than China. The two countries won a total of 166 medals. How many medals did each country win?

Supplementary and Complementary Angles

4. Find the measure of an angle whose supplement is 10° more than twice its complement.
5. Find the measure of an angle such that the sum of the measures of its complement and its supplement is 174°

Consecutive integers.

6. Two pages that face each other in this book have 249 as the sum of their page numbers. What are the page numbers?
7. Find two consecutive even integers such that the lesser added to three times the greater gives a sum of 46.

Answers:

1. 32
2. -3
3. China 63 medals, USA 103 medals
4. 10°
5. 48°
6. Pages 124 and 125
7. 10, 12