

Name _____

13-4B Lesson Master**Questions on SPUR Objectives**

See pages 833–835 for objectives.

SKILLS Objective B

In 1-12, find the two numbers that satisfy the given conditions.

1. $a + b = 10, ab = 21$ _____

2. $mn = 230, m + n = 33$ _____

3. $t + r = 92, rt = 2,100$ _____

4. $pr = 26, p + r = 15$ _____

5. $s + t = 21, st = 110$ _____

6. $q + r = 48, qr = 135$ _____

7. $vw = -2, v + w = 1$ _____

8. $j + k = -5, jk = -24$ _____

9. $c + d = -2, cd = -15$ _____

10. $k + h = 156, hk = 5,508$ _____

11. $xy = 30, x + y = 17$ _____

12. $uv = 92, u + v = 27$ _____

Name _____

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13. An interior designer made several notes about a rectangular room. She noted that the room needs 80 square feet of carpet and 36 feet of trim around the walls. What were the dimensions of the room?
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14. A rectangular rug is 140 square feet, and has a decorative pattern set in 2 feet from the edge running all around the edge. If the decorative pattern is 32 feet long, what is the perimeter of the rug? What are the dimensions of the rug?
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15. To sew a rectangular cover for his dog's bed, Gus needs 1,900 square inches, or about 13 square feet of fabric. That area allows for a hem of 2 inches on each side. The perimeter of the cover after hemming will be 168 inches. What will be the dimensions of the cover after hemming?
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16. To tile a large rectangular room, a contractor will use 14,000 tiles that each have an area of 0.0625 square meters. The perimeter of the room is 120 meters. What are the dimensions of the room?
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In 17–19, explain why there are no real numbers whose sum and product are given.

17. sum: 3, product: 5
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18. sum: 8, product: 25
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19. sum: 4, product: 6
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