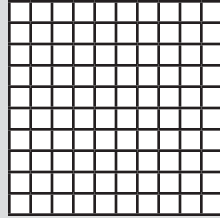If we know a perfect square, it is easy to find the next-largest perfect square by adding!
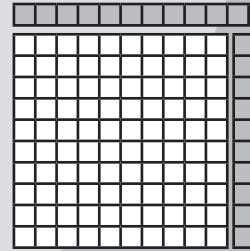
EXAMPLE | What is 11×11?

We already know $10 \times 10 = 100$.

To get from a 10×10 square to an 11×11 square, we just add 10 squares on the side and 11 squares on the top:

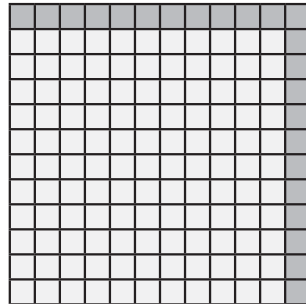$11 \times 11 = (10 \times 10) + (10 + 11) = 100 + 21 =$ **121**.

PRACTICE

34. Now that we know $11 \times 11 = 121$, what is 12×12?

34. _____

Use your answer above to find the squares below:

35. 13×13

35. _____

36. 14×14

36. _____

37. How much larger is 15 squared than 14 squared?

37. _____

If we know a perfect square, it is also easy to find the next-smallest perfect square by subtracting!

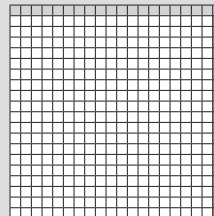**EXAMPLE** What is 19×19?

We know that 20×20= 400.
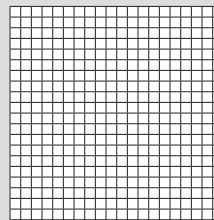
To get from a 20×20 square to a 19×19 square, we remove a row on top and a column on the side. To find 19×19, we subtract 20 and 19 from 400.
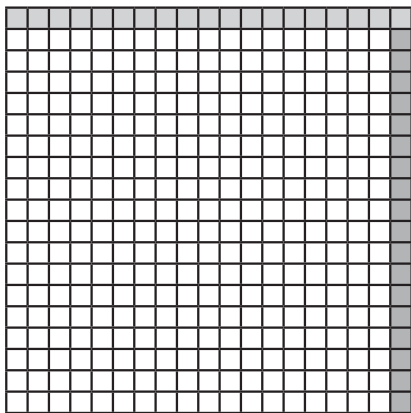
Subtracting 20 and 19 is the same as subtracting 39:
19×19= (20×20)−20−19= 400−39= **361**.

PRACTICE

38. Now that we know 19×19= 361, what is 18×18? **38.** _____

39. What is (18×18)−(17×17)? **39.** _____

40. What is (93×93)−(92×92)? **40.** _____
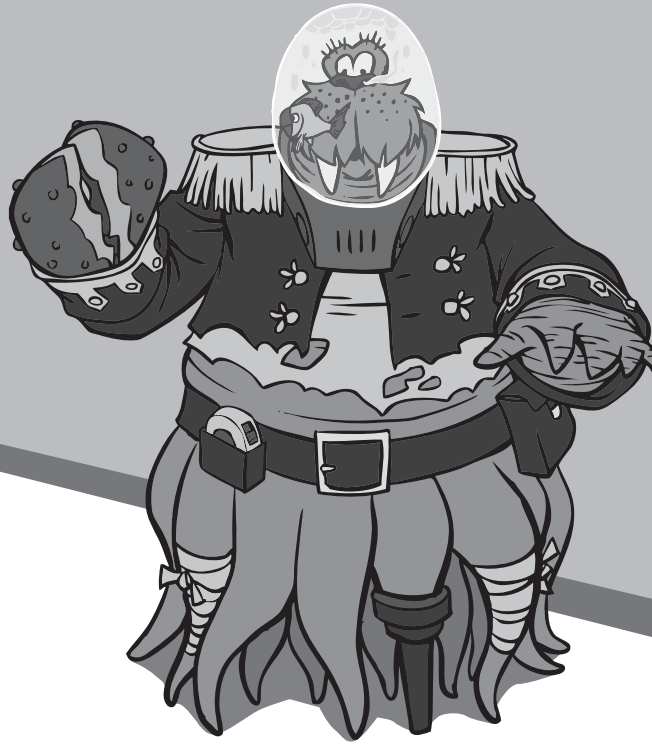
PRACTICE | Complete these sequences of perfect squares.

41. $200 \times 200 =$ _____

$201 \times 201 =$ _____

$202 \times 202 =$ _____

42. $35 \times 35 =$ _____

$36 \times 36 =$ _____

$37 \times 37 =$ _____

43. $50 \times 50 =$ _____

$49 \times 49 =$ _____

$48 \times 48 =$ _____

44. $25 \times 25 =$ _____

$24 \times 24 =$ _____

$23 \times 23 =$ _____

45. ★ $29 \times 29 =$ _____

$30 \times 30 =$ _____

$31 \times 31 =$ _____

46. ★ $39 \times 39 =$ _____

$40 \times 40 =$ _____

$41 \times 41 =$ _____