* Approximating Square Roots Practice.

Use your square root estimation skills to approximate each square root.

1. $\sqrt{200}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
2. $ \sqrt{31}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
3. $\sqrt{134}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
4. $ \sqrt{8}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
5. $ \sqrt{80}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
6. $\sqrt{111}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
7. $\sqrt{32}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
8. $ \sqrt{3}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
9. $\sqrt{150}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
10. $\sqrt{15}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
11. $ \sqrt{37}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
12. $ \sqrt{2}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
13. $\sqrt{35}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
14. $\sqrt{50}$ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_. It is closer to \_\_\_\_.
15. Explain how you could find between which two consecutive whole numbers you would plot $\sqrt{37}$ on a number line. Also explain how you can determine to which of these two whole numbers $\sqrt{37}$ is closest.

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| Perfect Squares |
| Square root | Perfect square |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |
| 11 |  |
| 12 |  |
| 13 |  |
| 14 |  |
| 15 |  |
| 16 |  |
| 17 |  |

\_\_\_\_\_\_\_\_\_\_\_ is between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_.

Its approximation is closer to \_\_\_\_\_\_\_\_\_.

1. Find perfect squares surrounding the radicand.
2. Find the difference between the perfect square and the radicand.
3. The smaller difference, the closer the approximation.

**Approximating square roots**