

24. Working With Three-Digit Divisors

When dividing by three-digit divisors, you need to estimate quotient figures as you did in Lesson 23. This is done by first rounding the divisor to the nearest hundred. In the example below, 491 is rounded to 500 for the purpose of estimation.

$\begin{array}{r} 542 \text{ R } 56 \\ 491 \overline{)266,178} \\ \underline{2455} \\ 2067 \\ \underline{1964} \\ 1038 \\ \underline{982} \\ 56 \end{array}$	<p>Think: $266 \div 500$ is less than 1. The first partial divisor is 2,661.</p> <p>Think: $2,661 \div 500 = 5$. Write 5 above the 1. Multiply 5×491 and subtract from 2,661. The remainder is 206. Bring down the 7.</p> <p>Think: $2,067 \div 500 = 4$. Write 4 above the 7. Multiply 4×491 and subtract from 2,067. The remainder is 103. Bring down the 8.</p> <p>Think: $1,038 \div 500 = 2$. Write 2 above the 8. Multiply 2×491 and subtract from 1,038. The remainder is 56, which is less than 491. Write the remainder beside the quotient.</p>
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CLASS PRACTICE

Divide, and check by casting out nines.

- a. $68 \overline{)2,397} \text{ }^{35} \text{ R } 17$ b. $315 \overline{)37,258} \text{ }^{118} \text{ R } 88$ c. $571 \overline{)84,762} \text{ }^{148} \text{ R } 254$ d. $812 \overline{)46,325} \text{ }^{57} \text{ R } 41$

WRITTEN EXERCISES

A. Copy and divide. Check by casting out nines.

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|---|--|---|---|
| 1. $23 \overline{)7,329} \text{ }^{318} \text{ R } 15$ | 2. $17 \overline{)2,489} \text{ }^{146} \text{ R } 7$ | 3. $27 \overline{)9,880} \text{ }^{365} \text{ R } 25$ | 4. $19 \overline{)6,509} \text{ }^{342} \text{ R } 11$ |
| 5. $45 \overline{)7,466} \text{ }^{165} \text{ R } 41$ | 6. $61 \overline{)5,813} \text{ }^{95} \text{ R } 18$ | 7. $192 \overline{)9,815} \text{ }^{51} \text{ R } 23$ | 8. $128 \overline{)2,835} \text{ }^{22} \text{ R } 19$ |
| 9. $627 \overline{)2,566} \text{ }^4 \text{ R } 58$ | 10. $926 \overline{)7,039} \text{ }^7 \text{ R } 557$ | 11. $708 \overline{)4,818} \text{ }^6 \text{ R } 570$ | 12. $472 \overline{)8,769} \text{ }^{18} \text{ R } 273$ |
| 13. $330 \overline{)20,283} \text{ }^{61} \text{ R } 153$ | 14. $894 \overline{)63,487} \text{ }^{71} \text{ R } 13$ | 15. $681 \overline{)50,734} \text{ }^{74} \text{ R } 340$ | 16. $587 \overline{)26,314} \text{ }^{44} \text{ R } 486$ |