

1.27

Quotient and Remainder

• Example 1

Divide

$$205 \overline{)6585}$$

205 is greater than 65, but smaller than 658. How many times does 205 go into 658? Our estimate is 3.

$$\begin{array}{r} 3 \\ 205 \overline{)6585} \\ \underline{615} \\ 43 \end{array}$$

We multiply: $205 \times 3 = 615$, and subtract. Our estimate, 3, was correct because $43 < 205$.

Continue the process by bringing down 5, the last digit of the dividend.

$$\begin{array}{r} 3 \\ 205 \overline{)6585} \\ \underline{615} \\ 435 \end{array}$$

Our estimate for the last digit of the quotient is 2.

$$\begin{array}{r} 32 \\ 205 \overline{)6585} \\ \underline{615} \\ 435 \\ \underline{410} \\ 25 \end{array}$$

We multiply and subtract to complete the process.

$$6585 \div 205 = 32 \text{ r}25$$

$$\text{Check: } 6585 = 205 \times 32 + 25$$

• • • CHECK YOURSELF 1

Divide.

$$321 \overline{)7582}$$

• • • CHECK YOURSELF ANSWER

1. 23 r199.

1.27 Exercises

Name _____

Section _____

Date _____

A N S W E R S

1. _____

2. _____

3. _____

4. _____

5. _____

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11. _____

12. _____

13. _____

14. _____

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16. _____

17. _____

18. _____

19. _____

20. _____

1. $763\overline{)3871}$

2. $871\overline{)4321}$

3. $326\overline{)7564}$

4. $229\overline{)8312}$

5. $432\overline{)8770}$

6. $375\overline{)7610}$

7. $454\overline{)32,751}$

8. $527\overline{)27,563}$

9. $103\overline{)21,185}$

10. $205\overline{)61,825}$

11. $234\overline{)125,000}$

12. $179\overline{)126,500}$

13. $563\overline{)2935}$

14. $218\overline{)7473}$

15. $329\overline{)8527}$

16. $434\overline{)35,202}$

17. $228\overline{)69,750}$

18. $325\overline{)275,000}$

19. $357\overline{)147,100}$

20. $281\overline{)6935}$