

RETEACHING 3-2

p.2 packet

**MULTIPLY AND DIVIDE SIGNED NUMBERS**

The rules for multiplying integers are as follows:

- The product of two integers having the same signs is positive.
- The product of two integers having opposite signs is negative.

$pos \times pos = pos$       $neg \cdot neg = pos$

The rules for dividing integers are as follows:

- The quotient of two integers having the same signs is positive.
- The quotient of two integers having opposite signs is negative.

opposite signs = neg.

EXERCISES

Use the rules for multiplying integers to find each product.

- |                              |                               |                               |
|------------------------------|-------------------------------|-------------------------------|
| 1. $-8 \cdot 5$ <u>-40</u>   | 2. $7 \cdot (-11)$ <u>-77</u> | 3. $-9 \cdot (-7)$ <u>63</u>  |
| 4. $3 \cdot 12$ <u>36</u>    | 5. $-8 \cdot (-10)$ <u>80</u> | 6. $-4 \cdot 9$ <u>-36</u>    |
| 7. $-6 \cdot (-6)$ <u>36</u> | 8. $8 \cdot (-6)$ <u>-48</u>  | 9. $-2 \cdot (-30)$ <u>60</u> |

pos · neg = neg

neg · neg = pos

10.  $3 \cdot 5 \cdot (-9) = -135$       11.  $-6 \cdot 5 \cdot 8 = -240$

12.  $-5 \cdot (-6) \cdot (-5) = -150$       13.  $(-4) \cdot (-7) \cdot 2 = 56$

$30(5)$        $8(7)$

odd # negative = negative  
 even # negative = positive

$1, 3, 5, 7, \dots$   
 $2, 4, 6, 8, \dots$

$$\begin{array}{r} 4 \\ \cancel{15} \\ \times 9 \\ \hline 135 \end{array}$$

$$\begin{array}{r} 30 \\ \times 8 \\ \hline 240 \end{array}$$

Find each quotient. Then check by multiplying.

14.  $14 \div (-7) = -2$       15.  $-32 \div (-4) = 8$       16.  $-63 \div 7 = 9$

17.  $-54 \div (-9) = 6$       18.  $-72 \div 8 = -9$       19.  $-18 \div (-3) = 6$

Replace each ■ with  $<$ ,  $>$ , or  $=$ .

41.  $-4 \cdot (-8)$  ■  $4 \cdot 8$   
 $32 = 32$

Replace each ■ with  $<$ ,  $>$ , or  $=$ .

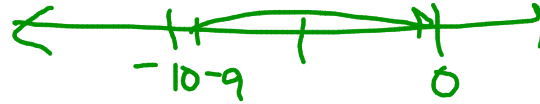
44.  $10 \div (-5)$  ■  $-15 \div (-3)$   
 $-2 < 5$

Replace each ■ with  $<$ ,  $>$ , or  $=$ .

42.  $-3 \div 1$  ■  $-3 \div (-1)$   
 $-3 < 3$

Replace each ■ with  $<$ ,  $>$ , or  $=$ .

45.  $-24 \div (-6)$  ■  $\frac{-25}{5}$   
 $4 > -5$



Replace each ■ with  $<$ ,  $>$ , or  $=$ .

$-10 < -9$

43.  $2 \cdot (-5)$  ■  $-3 \cdot 3$

$2 \times -5 = -10$        $-3 \times 3 = -9$

Replace each ■ with  $<$ ,  $>$ , or  $=$ .

46.  $7 \cdot (-8)$  ■  $-9 \cdot 6$

$7 \cdot (-8) = -56$        $-9 \cdot 6 = -54$

