1. Sample answer: If the rational numbers have different signs, the product is negative; if the rational numbers have the same sign, the product is positive.
2. Sample answer: Write the numbers in the same form and multiply. Since the signs are different, the product is negative.
3. Sample answer: The number line shows that the negative number, $-\frac{2}{3}$ , is multiplied $3 \frac{1}{2}$ times and the product, $-2 \frac{1}{3}$, is negative.
4. $-4 \frac{1}{2}$
5. B, E
6. a. 8.99
b. $-\frac{5}{2}$
c. $-1 \frac{3}{4}$ or -1.75
d. $\frac{1}{10}$
7. -48.9582
8. $-11 \frac{11}{12}$
9. $4 \frac{1}{6}$
10. $22 \frac{9}{32}$
11. $20 \frac{5}{8}$
12. 0.372
13. $\frac{1}{6}$
14. $-\frac{5}{48}$
15. a. $-\$ 12.71$
b. $\$ 36.93$
16. a. -1.45
b. -7.45
c. $\$ 30.87$
17. a. $-\frac{4}{63}$
b. Sample answer: Ming might not have simplified the first factor to be a positive $\frac{4}{9}$. So she ended up with the wrong sign for the product.
18. $5 \frac{6}{7} \times\left(-6 \frac{6}{7}\right),-5 \frac{1}{8} \times\left(-2 \frac{1}{4}\right), 4 \frac{4}{7} \times 4 \frac{4}{7}$
19. a. $10 \times(-1.3)=-13$
b. A
