Multiply. Reduce to simplest form if possible.

1. $\dfrac{3}{5} \cdot \dfrac{4}{3} = \dfrac{12}{15} = \boxed{\dfrac{4}{5}}$

2. $\left(\dfrac{3}{5}\right)\left(-\dfrac{1}{4}\right) = -\dfrac{3}{20}$

3. $\dfrac{4}{1} \cdot \dfrac{2}{3} = \dfrac{8}{3}$ or $2\dfrac{2}{3}$

Divide. Reduce to simplest form if possible.

4. $\dfrac{3}{5} \div \dfrac{4}{3} =$

$\dfrac{3}{5} \cdot \dfrac{3}{4} = \boxed{\dfrac{9}{20}}$

5. $\left(\dfrac{3}{5}\right) \div \left(-\dfrac{1}{4}\right) =$

$\dfrac{3}{5} \cdot \left(-\dfrac{4}{1}\right) = \boxed{-\dfrac{12}{5}}$ or $-2\dfrac{2}{5}$

6. $-3 \div \dfrac{4}{3} =$

$-\dfrac{3}{1} \cdot \dfrac{3}{4} = \boxed{-\dfrac{9}{4}}$ or $-2\dfrac{1}{4}$

Perform the indicated operation. Reduce to simplest form if possible.

7. $\dfrac{2}{5} \cdot \dfrac{5}{6} = \dfrac{10}{30} = \boxed{\dfrac{1}{3}}$

8. $\left(-\dfrac{2}{5}\right)\left(-\dfrac{3}{7}\right) = \dfrac{6}{35}$

9. $\dfrac{3}{4} \div \dfrac{5}{8} =$

$\dfrac{3}{4} \cdot \dfrac{8}{5} = \dfrac{24}{20} = \boxed{\dfrac{6}{5}}$ or $1\dfrac{1}{5}$

10. $\left(-\dfrac{2}{5}\right) \div \left(\dfrac{7}{9}\right) =$

$-\dfrac{2}{5} \cdot \dfrac{9}{7} = \boxed{\dfrac{-18}{35}}$

11. $\left(\dfrac{3}{4}\right)\left(-\dfrac{1}{4}\right) = -\dfrac{3}{16}$

12. $\dfrac{3}{8} \cdot \dfrac{5}{1} = \dfrac{15}{8}$

13. $\dfrac{1}{2} \div \dfrac{4}{5} =$

$\dfrac{1}{2} \cdot \dfrac{5}{4} = \boxed{\dfrac{5}{8}}$

14. $6 \div \left(-\dfrac{1}{4}\right) =$

$\dfrac{6}{1} \cdot \left(-\dfrac{4}{1}\right) = -\dfrac{24}{1} = \boxed{-24}$

15. $\dfrac{4}{5} \cdot \dfrac{2}{3} = \dfrac{8}{15}$

16. $\dfrac{6}{1} \cdot \left(-\dfrac{4}{3}\right) = -\dfrac{24}{3} = \boxed{-8}$

17. $\left(-\dfrac{7}{8}\right) \div \left(-\dfrac{5}{4}\right) =$

$-\dfrac{7}{8} \cdot \left(-\dfrac{4}{5}\right) = \dfrac{28}{40} = \boxed{\dfrac{7}{10}}$

18. $(-4)\left(\dfrac{4}{7}\right) = \boxed{\dfrac{-16}{7}}$ or $-2\dfrac{2}{7}$

Perform the indicated operations. Reduce to simplest form if possible.

19. $\dfrac{3}{5} \cdot \dfrac{4}{3} \cdot \dfrac{4}{3} =$

$\dfrac{12}{15} \cdot \dfrac{4}{3} = \dfrac{48}{45} = \boxed{\dfrac{16}{15}}$

20. $\left(\dfrac{3}{5}\right)\left(-\dfrac{1}{4}\right)(3) =$

$-\dfrac{3}{20} \cdot \dfrac{3}{1} = \boxed{-\dfrac{9}{20}}$

21. $\dfrac{1}{2}(8)(5) =$

$\dfrac{8}{2}(5)$

$4(5) = \boxed{20}$

Write a multiplication expression for each situation. Answer the question.

22. Mr. Brust loves $\frac{1}{4}$ pound burgers from McDonalds. He eats 6 of these burgers for dinner. How much burger did he eat?

Expression: $\frac{1}{4}(6)$

Answer: $\frac{6}{4} = \boxed{\frac{3}{2} \text{ pounds}}$

23. The temperature increased $\frac{4}{5}$ of a degree per hour for six hours. How many degrees did the temperature raise after six hours?

Expression: $\frac{4}{5}(6)$

Answer: $\frac{24}{5}$ or $4\frac{4}{5}$ degrees

24. Jim was deep sea diving last week. He descends $\frac{3}{4}$ of a meter every minute. How many feet will he descend in 10 minutes?

Expression: $\left(-\frac{3}{4}\right)(10)$

Answer: $-\frac{30}{4} = -\frac{15}{2}$

or $-7\frac{1}{2}$ meters

Write a division expression for each situation. Answer the question.

25. Mr. Brust wants to share his $\frac{1}{4}$ burger with 2 of his kids. He cuts the burger into 3 equal parts. How much burger does each person get?

Expression: $\frac{1}{4} \div 3$

Answer: $\frac{1}{12}$ burger

26. The temperature fell $\frac{3}{4}$ of a degree over $\frac{2}{3}$ of an hour. What was the average change in temperature per hour?

Expression: $\frac{3}{4} \div \frac{2}{3}$

Answer: $\frac{9}{8}$ or $1\frac{1}{8}$ degrees

27. Max lost 24 pounds in $\frac{4}{5}$ of a month on his new weight-loss plan. What was his average change in weight per month?

Expression: $(-24) \div \frac{4}{5}$

Answer: -30 pounds