

10-10-18

Aim: SWBAT multiply and divide fractions and mixed numbers including negatives.

HW: ~~Packet Page 17~~ Pg. 14 recheck by using calc
Quiz Tomorrow (add and subtract with signs)

Do Now: Quick Quiz

HOMWORK

Find the answers using a scientific calculator. Write answers as an improper fraction AND as a mixed number where applicable.

1. $\frac{4}{5} + \left(-\frac{7}{5}\right) = a$ $-\frac{3}{5}$ 2. $-\frac{5}{4} + \left(-\frac{7}{4}\right) = m$ -3 3. $-\frac{5}{8} + \frac{1}{6} = b$ $-\frac{11}{24}$
4. $y = -\frac{1}{2} + \left(-\frac{3}{4}\right)$ $-\frac{1}{4}$ OR $-\frac{5}{4}$ 5. $z = 4\frac{1}{2} + -3\frac{2}{3}$ $\frac{5}{6}$ 6. $b = -5\frac{2}{3} + \left(-8\frac{1}{2}\right)$ $-14\frac{1}{6}$ OR $-\frac{85}{6}$
7. $-10 + 7\frac{1}{3} = y$ $-2\frac{2}{3}$ OR $-\frac{8}{3}$ 8. $-1\frac{2}{7} + \left(-5\frac{3}{14}\right) = p$ $-6\frac{1}{2}$ OR $-\frac{13}{2}$ 9. $9\frac{5}{6} + \left(-8\frac{3}{4}\right) = m$ $1\frac{1}{2}$ OR $\frac{13}{12}$
10. $x = -\frac{5}{8} + \frac{7}{24}$ $-\frac{1}{3}$ 11. $-6\frac{1}{2} + \left(-4\frac{2}{3}\right) = h$ $-11\frac{1}{6}$ OR $-\frac{67}{6}$ 12. $-1\frac{3}{11} + \left(-5\frac{4}{5}\right) = z$ $-7\frac{4}{55}$ OR $-\frac{389}{55}$
13. $-16\frac{3}{4} + 8\frac{4}{5} = b$ $-7\frac{19}{20}$ OR $-\frac{151}{20}$ 14. $-5\frac{2}{3} + \left(-1\frac{1}{9}\right) = r$ $-6\frac{7}{9}$ OR $-\frac{61}{9}$ 15. $8\frac{7}{9} + 6\frac{1}{5} = a$ $14\frac{44}{45}$ OR $\frac{674}{45}$
16. $-21\frac{4}{7} + 8\frac{11}{21} = m$ $-13\frac{1}{21}$ OR $-\frac{274}{21}$ 17. $52\frac{12}{17} + \left(-15\frac{8}{34}\right) = d$ $37\frac{8}{17}$ OR $\frac{637}{17}$ 18. $-4\frac{3}{4} + 6\frac{5}{8} + \left(-4\frac{1}{16}\right) = k$ $-2\frac{7}{16}$ OR $-\frac{35}{16}$

State the property shown.

19. $3\frac{1}{4} + \left(-3\frac{1}{4}\right) = 0$ 20. $\left(-\frac{1}{2} + \frac{3}{4}\right) + \frac{5}{6} = -\frac{1}{2} + \left(\frac{3}{4} + \frac{5}{6}\right)$
21. $-\frac{5}{7} + \frac{1}{3}$ is rational 22. $8\frac{2}{3} + 0 = 8\frac{2}{3}$
23. $\frac{3}{4} + \left(-\frac{5}{7}\right) = -\frac{5}{7} + \frac{3}{4}$

Solve each of the following. Write your answers in simplest form.

24. $5 - 2\frac{1}{3} = p$ $2\frac{2}{3}$ OR $\frac{8}{3}$ 25. $-5\frac{2}{3} - 8 = d$ $-13\frac{2}{3}$ OR $-\frac{41}{3}$ 26. $-9\frac{1}{3} - \left(6\frac{2}{3}\right) = b$ -16
27. $-11\frac{1}{2} - \left(-16\frac{1}{2}\right) = c$ 5 28. $t = -4\frac{1}{5} - \left(-3\frac{7}{10}\right)$ $-\frac{1}{2}$ 29. $r = 8\frac{2}{5} - 3\frac{1}{2}$ $4\frac{9}{10}$ OR $\frac{49}{10}$
30. $x = 7\frac{1}{5} - \left(-3\frac{3}{4}\right)$ $10\frac{19}{20}$ OR $\frac{219}{20}$ 31. $3\frac{1}{7} - 8\frac{5}{6} = h$ $-5\frac{29}{42}$ OR $-\frac{239}{42}$ 32. $-12\frac{5}{8} - \left(-3\frac{1}{4}\right) = k$ $-9\frac{3}{8}$ OR $-\frac{75}{8}$

Extra Practice Answer Key

① $\frac{4}{5} + (-\frac{7}{5})$
 $\frac{4}{5} - \frac{7}{5}$
 $\frac{-3}{5}$

② $-\frac{5}{4} + (-\frac{7}{4})$
 $-\frac{5}{4} - \frac{7}{4}$
 $-\frac{12}{4}$
 -3

③ $-\frac{5}{8} + \frac{1}{6}$
 $-\frac{15}{24} + \frac{4}{24}$
 $\frac{-11}{24}$

④ $-\frac{1}{2} + (-\frac{3}{4})$
 $-\frac{1}{2} - \frac{3}{4}$
 $-\frac{2}{4} - \frac{3}{4}$
 $\frac{-5}{4}$

⑤ $4\frac{1}{2} + (-3\frac{2}{3})$
 $4\frac{1}{2} - 3\frac{2}{3}$
 $\frac{9}{2} - \frac{11}{3}$
 $\frac{27}{6} - \frac{22}{6}$
 $\frac{5}{6}$

⑥ $-5\frac{2}{3} + (-8\frac{1}{2})$
 $-5\frac{2}{3} - 8\frac{1}{2}$
 $-\frac{17}{3} - \frac{17}{2}$
 $-\frac{34}{6} - \frac{51}{6}$
 $\frac{-85}{6}$

⑦ $-10 + 7\frac{1}{3}$
 $-\frac{10}{1} + \frac{22}{3}$
 $-\frac{30}{3} + \frac{22}{3}$
 $\frac{-8}{3}$

⑧ $-1\frac{2}{7} + (-5\frac{3}{14})$
 $-1\frac{2}{7} - 5\frac{3}{14}$
 $-\frac{9}{7} - \frac{73}{14}$
 $-\frac{18}{14} - \frac{73}{14}$

⑨ $9\frac{5}{6} + (-8\frac{3}{4})$
 $9\frac{5}{6} - 8\frac{3}{4}$
 $\frac{59}{6} - \frac{35}{4}$
 $\frac{118}{12} - \frac{105}{12}$
 $\frac{13}{12}$

⑩ $-\frac{5}{8} + \frac{7}{24}$
 $-\frac{15}{24} + \frac{7}{24}$
 $-\frac{8}{24} \div \frac{8}{8} = \frac{-1}{3}$

$-\frac{91}{14} \div \frac{7}{7} = \frac{-13}{2}$

⑪ $-6\frac{1}{2} + (-4\frac{2}{3})$
 $-6\frac{1}{2} - 4\frac{2}{3}$
 $-\frac{13}{2} - \frac{14}{3}$
 $-\frac{39}{6} - \frac{28}{6}$
 $\frac{-67}{6}$

⑫ $-1\frac{3}{11} + (-5\frac{4}{5})$
 $-1\frac{3}{11} - 5\frac{4}{5}$
 $-\frac{14}{11} - \frac{29}{5}$
 $-\frac{70}{55} - \frac{319}{55}$
 $\frac{-389}{55}$

$\begin{array}{r} 29 \\ \times 11 \\ \hline 29 \\ + 29 \\ \hline 319 \end{array}$

⑬ $-16\frac{3}{4} + 8\frac{4}{5}$
 $-\frac{67}{4} + \frac{44}{5}$
 $-\frac{335}{20} + \frac{176}{20}$
 $\frac{-159}{20}$

$\begin{array}{r} 335 \\ - 176 \\ \hline 159 \end{array}$

14 $-5\frac{2}{3} + (-1\frac{1}{9})$
 $-5\frac{2}{3} - 1\frac{1}{9}$
 $\frac{-17}{3} - \frac{10}{9}$
 $\frac{-51}{9} - \frac{10}{9}$
 $\frac{-61}{9}$

15 $8\frac{7}{9} + 6\frac{1}{5}$
 $\frac{79}{9} + \frac{31}{5}$
 $\frac{395}{45} + \frac{279}{45}$
 $\frac{674}{45}$

16 $-21\frac{4}{7} + 8\frac{11}{21}$
 $-\frac{151}{7} + \frac{179}{21}$
 $-\frac{453}{21} + \frac{179}{21}$
 $\frac{-274}{21}$

$\frac{314}{21}$
 $\frac{-179}{21}$
 $\frac{274}{21}$

17 * $52\frac{12}{17} + (-15\frac{8}{34})$
 $52\frac{12}{17} - 15\frac{8}{34}$
 $52\frac{12}{17} = 52\frac{24}{34}$
 $52\frac{24}{34} - 15\frac{8}{34}$
 $37\frac{16}{34} = 37\frac{8}{17}$

18 $-4\frac{3}{4} + 6\frac{5}{8} + (-4\frac{1}{16})$
 $-\frac{19}{4} + \frac{53}{8} + (-\frac{65}{16})$
 $-\frac{76}{16} + \frac{106}{16} + (-\frac{65}{16})$
 $\frac{-35}{16}$

24 $5 - 2\frac{1}{3}$
 $\frac{5}{1} - \frac{7}{3}$
 $\frac{15}{3} - \frac{7}{3}$
 $\frac{8}{3}$

25 $-5\frac{2}{3} - 8$
 $-\frac{17}{3} - \frac{8}{1}$
 $-\frac{17}{3} - \frac{24}{3}$
 $\frac{-41}{3}$

26 $-9\frac{1}{3} - (6\frac{2}{3})$
 $-\frac{28}{3} - \frac{20}{3}$
 $-\frac{48}{3}$
 -16

$$\begin{aligned} & \textcircled{27} \quad -11\frac{1}{2} - (-16\frac{1}{2}) \\ & \quad -11\frac{1}{2} + 16\frac{1}{2} \\ & \quad \frac{-23}{2} + \frac{33}{2} \\ & \quad \frac{10}{2} \\ & \quad \textcircled{5} \end{aligned}$$

$$\begin{aligned} & \textcircled{28} \quad -4\frac{1}{5} - (-8\frac{7}{10}) \\ & \quad \frac{-21}{5} + \frac{37}{10} \\ & \quad \frac{-42}{10} + \frac{37}{10} \\ & \quad \frac{-5}{10} \div \frac{5}{5} \\ & \quad \frac{-1}{2} \end{aligned}$$

$$\begin{aligned} & \textcircled{29} \quad 8\frac{2}{5} - 3\frac{1}{2} \\ & \quad \frac{42}{5} - \frac{7}{2} \\ & \quad \frac{84}{10} - \frac{35}{10} \\ & \quad \frac{49}{10} \end{aligned}$$

$$\begin{aligned} & \textcircled{30} \quad 7\frac{1}{3} - (-3\frac{3}{4}) \\ & \quad 7\frac{1}{3} + 3\frac{3}{4} \\ & \quad \frac{36}{5} + \frac{15}{4} \\ & \quad \frac{144}{20} + \frac{75}{20} \\ & \quad \frac{219}{20} \end{aligned}$$

$$\begin{aligned} & \textcircled{31} \quad 3\frac{1}{7} - 8\frac{5}{6} \\ & \quad \frac{22}{7} - \frac{53}{6} \\ & \quad \frac{132}{42} - \frac{371}{42} \\ & \quad \frac{-239}{42} \end{aligned}$$

$$\begin{array}{r} 371 \\ -132 \\ \hline 239 \end{array}$$

$$\begin{aligned} & \textcircled{32} \quad -12\frac{5}{8} - (-3\frac{1}{4}) \\ & \quad -\frac{101}{8} + \frac{13}{4} \\ & \quad -\frac{101}{8} + \frac{26}{8} \\ & \quad \frac{-75}{8} \end{aligned}$$