

Name: _____ Period: _____ Score: _____ / _____

HW 1-3: Solve One-Step Equations with Rational Coefficients

Solve each equation. Check your solution.

1. $t + 7.2 = 1.65$

7. $-\frac{2}{3}w = 60$

2. $-0.4 = g - 4.9$

8. $-\frac{7}{8}k = -21$

3. $y - \frac{2}{5} = 1\frac{3}{5}$

9. $9.6 = 1.2b$

4. $-5\frac{1}{6} = 2\frac{1}{3} + p$

10. $0.75a = -9$

5. $2\frac{3}{4} = x - 3\frac{1}{8}$

11. $-413.4 = -15.9n$

6. $6 = \frac{1}{12}v$

12. $3\frac{1}{10}s = 6\frac{1}{5}$

Solve each equation. Check your solution.

13. $2\frac{2}{9} = -\frac{4}{5}m$

18. $-226.8 = 21.6y$

14. $-2\frac{4}{5} = -3\frac{1}{2}n$

19. $-30 = 1.25c$

15. $-\frac{3}{4}t = 5$

20. $1\frac{1}{2}x = 9\frac{9}{20}$

16. $-\frac{2}{9}g = -\frac{7}{9}$

21. $-12\frac{2}{3} = -1\frac{1}{9}y$

17. $0.6w = 0.48$

22. $1\frac{5}{7} = 1\frac{13}{14}a$

Determine whether each statement is *true* or *false*. Explain your reasoning.

23. The product of a fraction and its multiplicative inverse is 1.

24. A store is having a sale on notebook computers. Which equation can be used to find the regular price x of a notebook computer that is one sale for \$799?

A. $799x = 0.5$

C. $\frac{1}{799}x = 0.5$

B. $0.5x = 799$

D. $\frac{1}{0.5}x = 799$

25. **Find the Error.** Sarah is solving the equation $-\frac{7}{8}x = 24$.

Circle her mistake and correct it.

$$\begin{aligned} -\frac{7}{8}x &= 24 \\ \left(\frac{7}{8}\right) - \frac{7}{8}x &= 24\left(\frac{7}{8}\right) \\ x &= 21 \end{aligned}$$

26. **Find the Error.** Jack is solving the equation $\frac{2}{9} = \frac{4}{5}m$. Circle his mistake and correct it.

$$\begin{aligned} \frac{2}{9} &= \frac{4}{5}m \\ \frac{2}{9} \div \frac{5}{4} &= \frac{4}{5} \div \frac{5}{4}m \\ \frac{8}{45} &= m \end{aligned}$$

27. What is the reciprocal of $-\frac{4}{3}$?

A. $-1\frac{1}{3}$

C. $\frac{3}{4}$

B. $-\frac{3}{4}$

D. $1\frac{1}{3}$