

Name: _____

Score: _____

Solve the Absolute Value Equation

T1MS1

Solve each equation. In case of no solution, write \emptyset (null set).

| | | | | |
|---------------------------------------|--|----------------------------|---|----------------------------|
| 1) $ x = 12$ | 2) $-\left \frac{x}{3}\right = 17$ | 3) $- x = \frac{4}{3}$ | | |
| Solution = | Solution = | Solution = | | |
| 4) $-\left -\frac{x}{5}\right = -6$ | 5) $ -x = -3$ | 6) $\frac{ x }{2} = 2$ | | |
| Solution = | Solution = | Solution = | | |
| 7) $-\frac{ x }{7} = \frac{1}{2}$ | <div style="border: 2px solid #00a0e3; padding: 10px; background-color: #e6f2ff;"> <h1 style="margin: 0; color: #00a0e3;">PREVIEW</h1> <p style="margin: 5px 0; color: #00a0e3;">Gain complete access to the largest collection of worksheets in all subjects!</p> <div style="display: flex; justify-content: space-around; margin: 10px 0;"> <div style="background-color: #00a0e3; color: white; padding: 10px; transform: rotate(-2deg); text-align: center;"> <p>Members, please log in to download this worksheet.</p> </div> <div style="background-color: #00a0e3; color: white; padding: 10px; transform: rotate(2deg); text-align: center;"> <p>Not a member? Please sign up to gain complete access.</p> </div> </div> <p style="margin: 10px 0; color: #00a0e3;">www.mathworksheets4kids.com</p> </div> | | | |
| Solution = | | | | |
| 10) $-\left \frac{x}{6}\right = -4$ | | | | |
| Solution = | | | | |
| 13) $ -x = -11$ | | | | |
| Solution = | | | | |
| 16) $-\left \frac{x}{9}\right = -2$ | | | | |
| Solution = | | | | |
| 19) $\frac{ 3x }{8} = \frac{1}{3}$ | | | 20) $\left -\frac{x}{9}\right = \frac{2}{3}$ | 21) $ -5x = -\frac{3}{2}$ |
| Solution = | | | Solution = | Solution = |
| 22) $-\left -\frac{x}{4}\right = -5$ | 23) $ -x = 1$ | 24) $\frac{-3}{ -x } = 12$ | | |
| Solution = | Solution = | Solution = | | |

Name: _____

Answer key

Score: _____

Solve the Absolute Value Equation

T1MS1

| | | |
|--|---|---|
| 1) $ x = 12$ Solution = $\{-12, 12\}$ | 2) $-\left \frac{x}{3}\right = 17$ Solution = \emptyset | 3) $- x = \frac{4}{3}$ Solution = \emptyset |
| 4) $-\left -\frac{x}{5}\right = -6$ Solution = $\{-30, 30\}$ | 5) $ -x = -3$ Solution = \emptyset | 6) $\frac{ x }{2} = 2$ Solution = $\{-4, 4\}$ |
| 7) $-\frac{ x }{7} = \frac{1}{2}$ Solution = \emptyset | | $ x = -\frac{5}{3}$ Solution = \emptyset |
| 10) $-\left \frac{x}{6}\right = -4$ Solution = $\{-24, 24\}$ | | $ x = 9$ Solution = $\{-9, 9\}$ |
| 13) $ -x = -11$ Solution = \emptyset | | $ x = \frac{3}{7}$ Solution = $\{-\frac{3}{7}, \frac{3}{7}\}$ |
| 16) $-\left \frac{x}{9}\right = -2$ Solution = $\{-18, 18\}$ | | $ x = -7$ Solution = \emptyset |
| 19) $\frac{ 3x }{8} = \frac{1}{3}$ Solution = $\{-\frac{8}{9}, \frac{8}{9}\}$ | 19) $\left -\frac{x}{9}\right = \frac{2}{3}$ Solution = $\{-6, 6\}$ | 21) $ -5x = -\frac{3}{2}$ Solution = \emptyset |
| 22) $-\left -\frac{x}{4}\right = -5$ Solution = $\{-20, 20\}$ | 23) $ -x = 1$ Solution = $\{-1, 1\}$ | 24) $\frac{-3}{ -x } = 12$ Solution = \emptyset |

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