

1. Simplify as a fraction:

$$\frac{-(.25)^2 + 1.2 - \frac{1}{2}}{-\left(\frac{1}{2} - -\frac{1}{3}\right)}$$

2. Simplify:

$$\frac{-\frac{1}{3} + \left(-1\frac{3}{4}\right)}{-\left(\frac{1}{4}\right)^2 - \left(-\frac{1}{4} * -\frac{1}{4}\right)}$$

3. The highest temperature in the United States one day was $77.75^{\circ}F$. The lowest temperature that day was $-18.75^{\circ}F$. What is the distance between these temperatures on a thermometer?

4. Simplify:

$$\frac{22 - (-12 * 2 \div 2 + 2)}{-2 - 4 * -2}$$

5. Mike needs to make a doghouse. He bought a piece of wood that is $12\frac{3}{4}$ feet long and needs to cut the wood into pieces that are $2\frac{1}{4}$ feet long for the roof. How many $12\frac{3}{4}$ feet pieces would he need to buy if he needed $33\frac{1}{4}$ feet pieces?

6. Simplify:

$$\frac{-\frac{1}{10} - \left(-\frac{1}{5}\right)}{\left(-\frac{1}{4}\right)^2}$$

7. Simplify:

$$\frac{-\left(\frac{1}{2}\right)^2 - \left(\frac{1}{3} - \frac{1}{5}\right)}{\frac{1}{3} - -\frac{1}{4}}$$

8. Simplify:

$$\frac{m^{-2}p^{-4}r^8m^4}{m^{-6}p^8r^{-8}}$$

9. Simplify:

$$\frac{(2d^{-2}p^{-5}r^{-2})^2}{d^{-6}p^{-8}z^{-4}}$$

10. Simplify:

$$\frac{-\left(\frac{1}{2}\right)^2 - \left(\frac{1}{3} - \frac{1}{4} * \frac{1}{2}\right)}{\frac{1}{3} - -\frac{1}{4}}$$