

Second Set of Homework for Math 05

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Please note: You should fully justify your answers.

Signed numbers

1. Simplify the following expressions:

(a) $-(-3)$

(b) $-(-(-5))$

(c) $|-5|$

(d) $-|-3|$

(e) $| -(-(-7)) |$

2. Put the appropriate symbol ($<$, $>$, or $=$) in the blank so that we get a true statement:

(a) -7 3

(b) -8 -9

(c) $|-8|$ $|-9|$

(d) 3 $-(-3)$

(e) $|-4|$ -5

(f) 3 $|-3|$

3. Perform the indicated operations:

(a) $12 + (-5)$

(b) $-13 + 7$

(c) $-3 + (-4)$

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

(e) $\frac{7}{9} - 2$

(f) $\frac{3}{5} - \frac{5}{6}$

(g) $5 - 8$

(h) $-3 - 4$

(i) $2 - (-21)$

(j) $-7 - (-12)$

(k) $-\frac{3}{5} - \frac{2}{5}$

(l) $\frac{2}{7} - \left(-\frac{12}{7}\right)$

(m) $-\frac{1}{3} - \frac{1}{6}$

(n) $3 - 6 - (-9)$

(o) $-7 - (-8) - 2$

4. The temperature dropped from 12°F to -3°F . What was the drop in temperature?
5. An elevator started at the 32nd floor. It then went down 11 floors, then up 7 floors and then down 6 floors. At what floor is the elevator?

6. Multiply:

(a) $4(-3)$

(b) $(-5)(11)$

(c) $-8 \cdot 9$

(d) $(-4)\left(\frac{3}{7}\right)$

(e) $-2(-13)$

(f) $\left(-\frac{7}{10}\right)\left(\frac{5}{21}\right)$

(g) $0(-21)$

(h) $-\frac{4}{7} \cdot 0$

(i) $-\frac{6}{7}\left(-\frac{14}{33}\right)$

(j) $(-3)(-2)(-4)$

(k) $2(-7)(-10)(-1)$

(l) $\frac{12}{7}\left(-\frac{14}{15}\right)\left(-\frac{25}{16}\right)$

7. Divide:

(a) $\frac{-60}{6}$

(b) $\frac{-33}{-3}$

(c) $\frac{0}{-4}$

(d) $\frac{-5}{0}$

(e) $\frac{-60}{40}$

(f) $\frac{-36}{-27}$

(g) $\frac{\frac{2}{-3}}{-2}$

(h) $-\frac{7}{10} \div \frac{14}{25}$

(i) $\frac{7}{12} \div \left(-\frac{21}{36}\right)$

(j) $\frac{\frac{5}{-8}}{-\frac{5}{16}}$