

## Second Set of Homework for Math 05

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**Please note:** You should fully justify your answers.

### 1 Multiplication and division of signed numbers

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

2. 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)  $\frac{2}{-3}$

(h)  $\frac{-7}{-2}$

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

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

(k)  $\frac{5}{-8}$

(l)  $-\frac{8}{16}$

## 2 Order of operations

1. Evaluate each of the following expressions:

(a)  $(-1)^2$

(b)  $(-1)^9$

(c)  $-3^2$

(d)  $(-2)^2$

(e)  $-(-2)^4$

(f)  $-(-3)^3$

(g)  $-2^5$

(h)  $(-2)^5$

(i)  $(2 \cdot 3)^2$

(j)  $2^2 3^2$

(k)  $(6 + 9) \cdot 4$

(l)  $-3(5 - 8)$

(m)  $6 \cdot 7 + 3 \cdot 2$

(n)  $5 \cdot 9 - 4 \cdot 8$

(o)  $3 \cdot 5^2 - 7$

(p)  $4(-7 + 12)^2$

(q)  $2 + 3(3 - 5)^2$

(r)  $7 - 2(4 - 5)^3$

(s)  $-8 + 2(9 - 7)^2$

(t)  $2 + 8 \div 4 \cdot 2$

(u)  $-2((5 - 7)^2 - (-3 + 1)^3(6 \div 2 \cdot 3))$

(v)  $(-15 - 3^2 + (-3)^2 - 3) \div 9$