

1. List all factors of 48.
2. Consider a rectangle with sides 12 feet and 5 feet long.
  - a) Compute the perimeter of the rectangle. Include units in your computation and answer.
  - b) Compute the area of the rectangle. Include units in your computation and answer.
3. Simplify each of the following.

a)  $-3 - (-5) + (-4) - 8$

g)  $2^4 - 2(4^2 - 3(7 - 2^2))$

l)  $\sqrt{16} + \sqrt{9}$

b)  $-3 - [(-5) + (-4) - 8]$

h)  $\frac{(2^4 - 2^3)(2^3 - 2^2)}{10 - 3^2 + 1}$

m)  $\frac{20}{2} + 4$

c)  $-3 - [(-5) + (-4)] - 8$

i)  $\frac{3 \cdot 7 - 1^5}{2^3 - (3^2 - 1^2)}$

n)  $\frac{20 + 4}{2}$

d)  $12 - (-7 - (-5)) - 3^2$

j)  $\sqrt{16} + 9$

o)  $12 - 5 + 2$

e)  $20 - (2 \cdot 5^2 - 7^2 + 4)$

k)  $\sqrt{16 + 9}$

p)  $\frac{3^3 - 2 \cdot 1^3}{2^3 + (-3)}$

f)  $20 - ((2 \cdot 5)^2 - 7^2 + 4)$

4. Simplify the following expression. Show all steps.

$$10 - \frac{3^2 - 1^3}{5 - (-3)} - 2(3^2 - 2^3 + 1) - \frac{14}{2}$$