

Math 165/166
Lab 1, Jan 13
Chapter 1

Name:
Box Number:

1. Perform the indicated operations.

(a) $3 \cdot \frac{5}{9} - \frac{5}{4} \cdot \frac{12}{45}$

(b) $\frac{7}{8} \cdot \frac{1}{\frac{7}{3} + \frac{11}{12}}$

2. The perimeter of a rectangle is given by the formula $P = 2(L + W)$, where L is the length and W is the width of the rectangle. Find the perimeter if $L = 5.4$ feet and $W = 3.7$ feet.

3. Evaluate the expression $\frac{|x|}{1+|x|} + \frac{|y|}{1+|y|}$ when $x = -1.5$ and $y = -0.75$.

4. Multiply $(2x^2 + 3xy - y^3)(x - 5y)$.

5. Perform the indicated operations and simplify the expression $(x^2 + 2y)[(x + y)^2 - (x - y)^2]$.

Answers:

1. (a) $\frac{4}{3}$ (b) $\frac{7}{26}$

2. 18.2 feet

3. $\frac{36}{35}$

4. $2x^3 - 7x^2y - 15xy^2 - xy^3 + 5y^4$

5. $4x^3y + 8xy^2$