

Math 5 HOMEWORK 4,
October 6, 2024

1. Compute:

(a) $-4 - (-9) =$

(b) $-(-8 + (-4)) =$

(c) $-3 - (9 + (-6)) =$

(d) $-3 - (-7) + (-5) =$

(e) $-2 \cdot (-5) \cdot (-2) =$

(f) $-\frac{3}{5} - (-1\frac{1}{5}) =$

2. Open parenthesis, simplify:

(a) $3(a - 5) - 2(2a - 9) =$

(b) $12x - 3x(x + 4) =$

(c) $5x - 5(7 - a + x) =$

(d) $-3z - (z - 4) + 2(2z - 5) =$

(e) $a(a + b) + b(a + 1) =$

(f) $2a(a - 2) - a(a - 1) =$

3. Write the following expressions as powers:

a. $7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 =$

b. $\frac{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2}{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2} =$

c. $\frac{9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9}{9 \cdot 9 \cdot 9} =$

d. $\frac{2 \cdot 2 \cdot 2 \cdot 2}{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2} =$

e. $\frac{a \cdot a \cdot a \cdot a \cdot a}{a \cdot a \cdot a \cdot a \cdot a} =$

f. $\frac{10 \cdot 10 \cdot 10 \cdot 10 \cdot 10 \cdot 10 \cdot 10}{10 \cdot 10 \cdot 10 \cdot 10} =$

4. A bar of soap weighs as much as $\frac{3}{4}$ of an identical bar plus $\frac{3}{4}$ of a pound. How much does the bar of soap weigh?

5. A father is twice as old as his son. The sum of their ages is 48 years. How old is each of them?

6. An orange costs 2 cents more than an apple. A grapefruit costs as much as 3 oranges. A fruit basket consists of 10 apples, 5 oranges, and a grapefruit.

(a) If the price of an apple is a , what is the price of an orange? a grapefruit?

(b) If the fruit basket costs \$1.96, how much each of the fruits cost?

7. (a) How many multiples of 3 are there between 1 and 1400?

(b) How many multiples of 3 are there between 1000 and 1400?