HOMEWORK 8,
November 15, 2020

I would like to remind you that the homework should be done on a separate piece of paper. There is not enough space on this handout to show all work. ***You must show all steps!***

1. Simplify. Write your answer as a number with a positive power:

a) $7^8 \cdot 7^{24} \cdot 7^{-15} =$

b) $x^{19} \div x^{23} =$

c) $xx^4x^4x =$

c) $a^5 \cdot (a^2)^3 =$

d) $(a^3a^2)^2 =$

e) $(b^2)^3 \cdot (b^3)^5 =$

f) $\frac{2^5 \cdot (2^3)^4}{2^{13}} =$

d) $\frac{(5^8)^2 \cdot 5^7}{5^{22}} =$

2. Solve each equation:

a) $5.4(3g - 2) - 7.2(2g - 3) = -1.8$

b) $-3.2n + 4.8 = -2(1.2n + 2.4)$

c) $-5(0.8z - 1.2) = -z + 7.2$

d) $\frac{1}{3}(3x - 6) - \frac{2}{7}(7x - 21) = 9$

Solve the following word problems any way you like. Make sure to show all steps!

3. Mrs. Weatherby baked 175 cookies for a party. The children ate $\frac{4}{7}$ of the cookies. The adults ate 48 cookies. How many cookies were left?

4. A florist has 36 roses, 90 lilies, and 60 daisies. What is largest amount of bouquets he can create from these flowers evenly dividing each kind of flowers between them?

5. There are 4 short stories in a book. The first story is 12 pages long, which is $\frac{2}{3}$ of the second story. The third story is $\frac{5}{6}$ of the length of the first two stories together. How long is the fourth story, if four stories together occupy 64 pages in the book?