

HOMEWORK 7,
November 8, 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. Solve each equation:

a) $\frac{15a}{36} = \frac{45}{12}$

b) $\frac{y-3}{8} = \frac{3}{4}$

c) $\frac{5n-3}{4} = \frac{5n+3}{6}$

d) $\frac{36}{2x-3} = \frac{72}{2x+3}$

e) $\frac{7}{6}(2x + 3) + \frac{3}{4}\left(\frac{x}{3} - \frac{15}{3}\right) = \frac{11}{4}$

2. Compute – expressions with exponents:

a) $3^4 - 0.5 \cdot 2^5 =$

b) $0.4 \cdot 4^3 + \frac{1}{6} \cdot 12^2 =$

c) $5^3 - 2(6^2 - 5^2) =$

3. Simplify:

$$\frac{\left(\frac{1}{6} + 0.1 + \frac{1}{15}\right) \div \left(\frac{1}{6} + 0.1 - \frac{1}{15}\right) \cdot 2.52}{\left(0.5 - \frac{1}{3} + 0.25 - \frac{1}{5}\right) \div \left(0.25 - \frac{1}{6}\right) \cdot \frac{7}{13}} =$$

Write an equation to solve each of the following word problems:

4. The Eiffel Tower is 497 feet taller than the Washington Monument. If each of the monuments were 58 feet shorter, the Eiffel Tower would be twice as tall as Washington Monument. How tall is each?
5. Nine cartons of juice cost the same as 5 fruit cups. Also, one fruit cup costs \$0.50 more than one bowl of soup, while one bowl of soup costs \$0.50 more than one carton of juice. How much would the cost of one carton of juice, one fruit cup and one bowl of soup together?