

Math 5b, homework 15.



1. Evaluate:

a. $5 \cdot \sqrt{4} \cdot 3$;

b. $2 \cdot \sqrt{9} + 3 \cdot \sqrt{16}$

c. $\sqrt{13 - 3 \cdot 3}$;

d. $\sqrt{7^2 - 26} : 2$

e. $\frac{1}{2} \sqrt{5^2 + 22} : 2$;

f. $3\sqrt{0.64} - 5 \cdot \sqrt{1.21}$

2. There are two kinds of loose-leaf tea in the store, one is \$8 per pound, and the other is \$5 per pound. How should the store owner mix them so that the blend would be \$6 per pound?
3. Area of a triangle is 8 cm^2 , and the altitude is 2.5 cm. What is the length of the base to which the altitude is drawn.
4. Tea was packaged in 30 packs of 150 grams each. How many packs will there be if the same amount of tea is packaged in 250-gram packs?
5. Evaluate. (Try not to use paper to do your calculations, do mental math and write only the resulting answers for each step). Answer is 10.

$$(12 - 8.4) : 0.09 \cdot 0.7 - 0.3 \cdot (0.6 + 3.12) : (14.18 - 7.98) : 0.01$$

6. 12% of boys and 8% of girls play in the school orchestra. What percentage of all students play in the school orchestra if boys make up $\frac{3}{5}$ of all students?
7. Prove that the numbers 3^{33} , 3^{333} , 3^{3333} end with the same digit.