Ratios, Proportions, and Similarity

Write on your own sheet of paper. You will not turn this worksheet in.

Tell what each ratio is multiplied by to produce the equivalent ratio.

1. $\dfrac{6}{12} = \dfrac{18}{36}$

2. $\dfrac{2}{11} = \dfrac{22}{121}$

3. $\dfrac{1}{5} = \dfrac{6}{30}$

4. $\dfrac{6}{12} = \dfrac{9}{18}$

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Tell whether the ratios are proportional.

5. $\dfrac{5}{20} \overset{?}{=} \dfrac{9}{32}$

6. $\dfrac{15}{20} \overset{?}{=} \dfrac{24}{36}$

7. $\dfrac{12}{36} \overset{?}{=} \dfrac{10}{30}$

8. $\dfrac{4}{8} \overset{?}{=} \dfrac{20}{40}$

_____   _____   _____   _____

9. $\dfrac{2}{7} \overset{?}{=} \dfrac{6}{21}$

10. $\dfrac{6}{10} \overset{?}{=} \dfrac{9}{15}$

11. $\dfrac{14}{27} \overset{?}{=} \dfrac{12}{23}$

12. $\dfrac{16}{22} \overset{?}{=} \dfrac{24}{33}$

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13. Sonia's class has 24 girls and 8 boys. Her school has a total enrollment of 648 girls and 216 boys. Does the school has the same ratio of girls to boys as Sonia's class? Explain.

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14. The directions on a bottle of concentrated juice mix say the ratio of concentrate to water is 1:4. If Alice used 32 cups of water to make the juice, how much concentrate did she use?

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15. Greg bought 6 post cards for $3.00. At this rate, how much would 10 post cards cost?

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16. Alan is driving 450 miles to visit a friend. So far, he has driven 100 miles in 2 hours. If he continues driving at the same rate, how many more hours will it take to finish the trip?