Ratio: Skill 5 - 25C

Equivalent Ratios and Proportions

Proportions

Use cross products to see if two ratios form a proportion. Multiply the numerator of one fraction by the denominator of the other fraction. Repeat the process for the other numerator and denominator.

Are the ratios equivalent? Use cross products to find out. Does 3:8 = 21:56?	First, write the ratios as fractions. Does $\dfrac{3}{8} = \dfrac{21}{56}$?	Find the cross products. $3 \times 56 = 168$ $8 \times 21 = 168$ The ratios are equal because the cross products are equal.

Directions: Are the ratios equivalent? Write yes or no for each problem.

1. 4:1 and 12:3   Does $\dfrac{4}{1} = \dfrac{12}{3}$? $4 \times 3 = 12$ and $1 \times 12 = 12$ so, the ratios are equivalent and therefore form a proportion.

2. 3:5 and 6:10

3. 5:2 and 8:4

4. 6:3 and 12:9

5. 4:6 and 12:18

6. 3:5 and 15:20

7. 3:8 and 18:48

8. 3:7 and 21:42

9. 15 to 5 and 3 to 1

10. 12:6 and 3:2

11. 8:32 and 1:4

12. 25:5 and 4:1

Ratio: Skill 5 - 25C

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Directions: Are the ratios equivalent? Write yes or no for each problem.

13. $\frac{2}{3}$ and $\frac{6}{8}$

14. $\frac{3}{4}$ and $\frac{9}{12}$

15. $\frac{12}{3}$ and $\frac{3}{1}$

16. 1 to 4 and 25 to 100

17. 3 to 9 and 9 to 12

18. $\frac{12}{18}$ and $\frac{24}{32}$

19. 16:4 and 8:2

20. 4 to 8 and 7 to 16

21. 6:8 and 3:4

22. 2:10 and 20:80

23. 2:1 and 50:30

24. 54 to 36 and 9 to 6

25. 10:1 and 100:10

26. 6:4 and 36:24

27. 7:6 and 84:72

28. 9:12 and 54:70

Answer Key Skill 25C Grade 5

1. yes   2. yes   3. no   4. no   5. yes   6. no   7. yes

8. no   9. yes   10. no   11. yes   12. yes   13. no   14. yes

15. no   16. yes   17. no   18. no   19. yes   20. no   21. yes

22. no   23. no   24. no   25. yes   26. yes   27. yes   28. no

29. yes