

Name _____ Period _____ Date _____

TEST CHAPTER 2 PART 2

For problems 1-5, find the prime factorization by making factor trees.

1. 400

a. $2^3 \times 5^2$

b. $2^4 \times 5^2$

c. $2^3 \times 5^3$

d. $2^4 \times 5^3$

2. 70

a. $2^2 \times 5 \times 7$

b. 2×7

c. 2×5

d. $2 \times 5 \times 7$

3. 24

a. $2^3 \times 3$

b. $2^4 \times 3$

c. 2×3^3

d. 2×3^2

4. 108

a. $2^3 \times 3^3$

b. $2^2 \times 3^3$

c. $2^2 \times 3^2$

d. $2^3 \times 3^2$

5. 84

a. $2 \times 3 \times 7$

b. $2^2 \times 7$

c. $2^2 \times 3 \times 7$

d. $2^2 \times 3$

For problems 6-10, three of the four fractions are equivalent. Which fraction is not equivalent to the others?

6. a. $\frac{4}{7}$ b. $\frac{14}{28}$ c. $\frac{28}{56}$ d. $\frac{7}{14}$

7. a. $\frac{72}{81}$ b. $\frac{8}{9}$ c. $\frac{24}{27}$ d. $\frac{36}{42}$

8. a. $\frac{24}{28}$ b. $\frac{42}{56}$ c. $\frac{12}{14}$ d. $\frac{6}{7}$

9. a. $\frac{2}{3}$ b. $\frac{15}{20}$ c. $\frac{75}{100}$ d. $\frac{3}{4}$

10. a. $\frac{18}{21}$ b. $\frac{6}{7}$ c. $\frac{12}{14}$ d. $\frac{24}{30}$

For problems 11-15, reduce the fractions.

11. $\frac{12}{28}$

12. $\frac{14}{42}$

13. $\frac{100}{500}$

14. $\frac{45}{126}$

15. $\frac{64}{90}$

For problems 16-20, find the greatest common factor. (Hint: Make factor trees.)

16. 20 and 50

17. 14 and 98

18. 5 and 15

19. 14 and 21

20. 42 and 49

For problems 21-23, find the decimal form of each fraction.

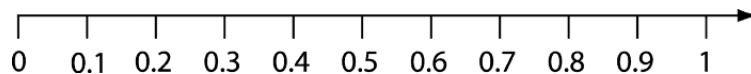
21. $\frac{56}{152}$

22. $\frac{15}{21}$

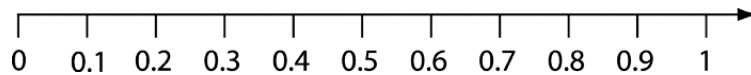
23. $\frac{2}{3}$

For problems 24-25, order the numbers from least to greatest. Then, plot the numbers on a number line.

24. $\frac{2}{3}, \frac{3}{9}, \frac{4}{5}, 1.0, 0.1$



25. 0.5, 0.55, 0.4, 0.6, 0.42



BONUS: Circle the numbers that divide each problem. Put an X over all the numbers that don't divide each problem.

522 2 3 4 5 6 9 10

49 2 3 4 5 6 9 10

Name ANSWER KEY Period _____ Date _____
TEST CHAPTER 2 PART 2

For problems 1-5, find the prime factorization by making factor trees.

1. 400

- a. $2^3 \times 5^2$ **b.** $2^4 \times 5^2$ c. $2^3 \times 5^3$ d. $2^4 \times 5^3$

2. 70

- a. $2^2 \times 5 \times 7$ b. 2×7 c. 2×5 **d.** $2 \times 5 \times 7$

3. 24

- a.** $2^3 \times 3$ b. $2^4 \times 3$ c. 2×3^3 d. 2×3^2

4. 108

- a. $2^3 \times 3^3$ b. $2^2 \times 3^3$ **c.** $2^2 \times 3^2$ d. $2^3 \times 3^2$

5. 84

- a. $2 \times 3 \times 7$ b. $2^2 \times 7$ **c.** $2^2 \times 3 \times 7$ d. $2^2 \times 3$

For problems 6-10, three of the four fractions are equivalent. Which fraction is not equivalent to the others?

6. **a.** $\frac{4}{7}$ b. $\frac{14}{28}$ c. $\frac{28}{56}$ d. $\frac{7}{14}$

7. a. $\frac{72}{81}$ b. $\frac{8}{9}$ c. $\frac{24}{27}$ **d.** $\frac{36}{42}$

8. a. $\frac{24}{28}$ **b.** $\frac{42}{56}$ c. $\frac{12}{14}$ d. $\frac{6}{7}$

9. **a.** $\frac{2}{3}$ b. $\frac{15}{20}$ c. $\frac{75}{100}$ d. $\frac{3}{4}$

10. a. $\frac{18}{21}$ b. $\frac{6}{7}$ c. $\frac{12}{14}$ **d.** $\frac{24}{30}$

For problems 11-15, reduce the fractions.

11. $\frac{12}{28} = \frac{3}{7}$

12. $\frac{14}{42} = \frac{1}{3}$

$$13. \frac{100}{500} = \frac{1}{5}$$

$$14. \frac{45}{126} = \frac{5}{14}$$

$$15. \frac{64}{90} = \frac{32}{45}$$

For problems 16-20, find the greatest common factor. (Hint: Make factor trees.)

16. 20 and 50

10

17. 14 and 98

14

18. 5 and 15

5

19. 14 and 21

7

20. 42 and 49

1

For problems 21-23, find the decimal form of each fraction.

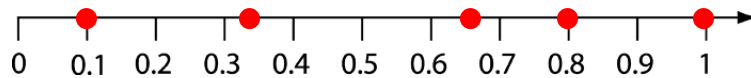
$$21. \frac{56}{152} = \mathbf{0.368}$$

$$22. \frac{15}{21} = \mathbf{0.238}$$

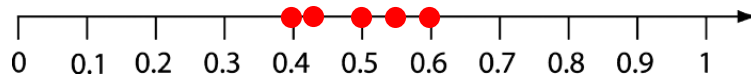
$$23. \frac{2}{3} = \mathbf{0.667}$$

For problems 24-25, order the numbers from least to greatest. Then, plot the numbers on a number line.

24. $\frac{2}{3}$, $\frac{3}{9}$, $\frac{4}{5}$, 1.0, 0.1



25. 0.5, 0.55, 0.4, 0.6, 0.42



BONUS: Circle the numbers that divide each problem. Put an X over all the numbers that don't divide each problem.

522

2

3

~~X~~

~~X~~

6

9

~~X~~

49

~~X~~

~~X~~

~~X~~

~~X~~

~~X~~

~~X~~

~~X~~