

Name: _____ Date: _____ Block: _____

Module 1: Fraction Operations and Real Numbers

1. $\frac{4}{5} + \frac{6}{10} =$

2. $\frac{3}{7} \cdot \frac{5}{8} =$

3. $\frac{3}{4} \div \frac{1}{4} =$

4. $\frac{7}{9} - \frac{1}{5} =$

5. Ali bought $6\frac{1}{4}$ yards of material. She used $2\frac{2}{5}$ yards to make a dress. How much material does she have left?

6. Daysha has 60 movies. Of those movies, $\frac{3}{5}$ are comedies. How many of Daysha's movies are comedies?

7. Convert the following fractions, decimals, and percent.

Fraction	Decimal	Percent
$\frac{3}{8}$		
	0.03	
		20%
	.145	
$\frac{4}{5}$		

8. Estimate $\sqrt{31}$. Use a number line and explain your estimation.

9. Estimate $\sqrt{52}$. Use a number line and explain your estimation.

Number	Rational or Irrational (circle one)	Explain how you know the number is rational or irrational.
10) $\frac{1}{9}$	Rational Irrational	
11.) π	Rational Irrational	
12.) $0.\overline{45}$	Rational Irrational	

Module 2: Exponents and Pythagorean Theorem

Simplify the following using the properties of exponents.

13. $(x^3)^4 = \underline{\hspace{2cm}}$

14. $\frac{x^{10}}{x^6} = \underline{\hspace{2cm}}$

15. $\frac{4x^5y^{28}}{y^5} = \underline{\hspace{2cm}}$

Pythagorean Theorem

16. The slide at the playground has a height of 6 feet. The base of the slide measured on the ground is 8 feet. What is the length of the sliding board? (Hint: Draw a picture)

17. A baseball “diamond” is actually a square with sides of 90 feet. If a runner tries to steal second base, how far must the catcher, at home plate, throw to get the runner “out”? (Hint: Draw a picture)

Module 3: Proportions and Unit Rates

18. For three people, there are 15 candy bars. What is the unit rate for the number of candy bars for 1 person?

19. According to a survey, 7 out of 10 mothers used daycare. In a group of 150 mothers, how many would you predict would use day care?

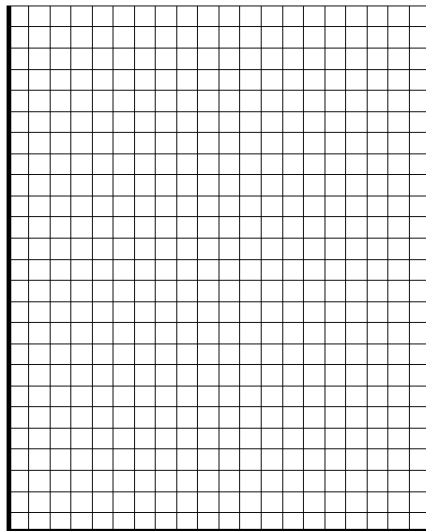
Graphing Unit Rates (Compare proportions in multiple representations)

20. Given the following situation: Rhonda was paid \$35 for 7 hours of babysitting,

a) Create a table for the proportional relationship.

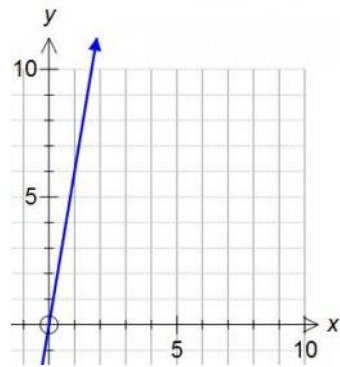
b) Determine the unit rate (constant of proportionality).

c) Create a graph



d) Write an equation for the situation.

21. Write the slope & equation of the line



Module 4: Equations and Inequalities and Customary and Metric Conversions

Solve the equation.

22. $7x = 98$

23. $x - 5 = 43$

24. A weight-lifter's maximum amount he can lift is 300 pounds. Write and solve an inequality to find the number of 50-pound weights he can possibly lift.

Solve and graph the inequality.

25. $x - 4 \geq 5$

26. $-4 + x > -13$

Customary Conversions. Show your work by setting up a proportion.

27. 104 fl. ounces = _____ cups

28. 6 quarts = _____ pints

29. 5.5 feet = _____ yards

30. 3,500 pounds = _____ tons

Metric Conversions.

31. 1.43 kg = _____ g

32. 31,432 mm = _____ hm

33. 650 cL = _____ mL

34. 0.653 dm = _____ mm