

PRE - Algebra - Review 3, LESSONS 15-22

SOLVE FOR THE UNKNOWN.

$$1. \frac{1}{4} = \frac{16}{x}$$

$$x = 64$$

$$2. \frac{9}{y} = \frac{9}{8}$$

$$9y = 72 \quad y = 8$$

$$3. \frac{8}{19} = \frac{x}{7}$$

$$19x = 56$$

$$x = \frac{56}{19} = 2.95$$

FIND THE LCM FOR EACH PAIR OF NUMBERS.

$$2 \cdot 2 \cdot 3 = 12$$

$$4. \quad 4 \text{ and } 6$$

$$2 \cdot 2$$

$$2 \cdot 3$$

$$5. \quad 8 \text{ and } 20$$

$$2 \cdot 2 \cdot 2$$

$$2 \cdot 2 \cdot 5$$

$$2 \cdot 2 \cdot 2 \cdot 5 = 40$$

$$6. \quad 13 \text{ and } 65$$

$$1 \cdot 13$$

$$5 \cdot 13$$

$$LCM = 65$$

FIND THE GCF FOR EACH PAIR OF NUMBERS.

$$7. \quad 12 \text{ and } 13$$

$$1$$

$$8. \quad 15 \text{ and } 25$$

$$3 \cdot 5$$

$$5 \cdot 5$$

$$5$$

$$9. \quad 8 \text{ and } 14$$

$$2 \cdot 4$$

$$2 \cdot 7$$

$$2$$

WRITE A Proportion ~~out~~ FOR EACH SET OF SIMILAR POLYGONS. SOLVE FOR THE UNKNOWN SIDE.

$$\frac{x}{5} = \frac{8}{4}$$

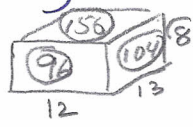
$$x = 10$$

$$11. \quad .3 \quad \frac{y}{.7} = \frac{18}{.3}$$

$$y = \frac{.7(18)}{.3} = 42$$

$$18$$

12. A Room is 12 feet long, 13 feet wide and 8 feet high. How many square feet must be covered if the walls, ceiling and floor are all to be painted?



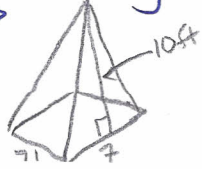
$$104 \times 2 = 208$$

$$96 \times 2 = 192$$

$$156 \times 2 = 312$$

$$712 \text{ sq. ft.}$$

13. What is the surface area of a pyramid with a square base measuring 7' on a side if the face height is 10 feet?



$$4 \left(\frac{1}{2} \right) (7) (10) = 140$$

$$7(7) = 49$$

$$189 \text{ sq. ft.}$$

14. The temperature in Victoria's backyard is 5°C . Give the temperature in Fahrenheit.

$$5^{\circ}\text{C} \left(\frac{9}{5}\right) + 32 = \boxed{41^{\circ}\text{F}}$$

15. If The temperature is 62°F , what is the temperature in Celsius?

$$(62^{\circ}\text{F} - 32) \frac{5}{9} = \boxed{16.67^{\circ}\text{C}}$$

16. Simplify and write without the absolute value sign.

$$|4 - 8^2 + 3| - |7| = \boxed{50}$$

$$|4 - 64 + 3| - 7$$

$$1 - 57 - 7$$

17. $4 + 1,082 = \boxed{5,082}$

18. $5.98 - 2.37 = \boxed{3.61}$

$$\begin{array}{r} 5.98 \\ - 2.37 \\ \hline 3.61 \end{array}$$

19. $\begin{array}{r} 8.2 \\ \times 6 \\ \hline 492 \end{array}$

20. $\begin{array}{r} .007 \\ \times .92 \\ \hline .00644 \end{array}$

21. $6 \overline{) 3.8}$

$$\begin{array}{r} 6 \overline{) 3.8} \\ \underline{36} \\ 20 \\ \underline{18} \\ 2 \end{array}$$

22. $\begin{array}{r} .04 \overline{) .092} \\ \underline{2.3} \\ 49.2 \end{array}$