

Name: _____

Are you ready for Pre-Algebra?

Put your answers in the boxes.

1 Find the **Square Root**. $\sqrt{49} = \square$

2 Find the **Square Root**. $\sqrt{121} = \square$

3 Find the "**Lowest Common Multiple**" of 3 and 7.

4 Find the "**Greatest Common Factor**" of 18 and 24.

5 Is 12 a "**Prime**" Number?

6 Prime Factor 18.

7 What are the "**Divisibility Rules**" for each of the following numbers

2 _____

3 _____

5 _____

10 _____

8 In 3^2 , what is the "Exponent"?
What is the "Base"?

9 Find the value of 2^3 .

10 Write $7 \times 7 \times 7 \times 7$ in exponent form.

11 What is the Value of 8^0 ?

12 Circle the numbers which are "**Perfect Squares**":

9 12 16 24 36 79 81

13 Simplify:

(a) $\frac{18}{9} = \square$ (b) $\frac{24}{27} = \square$

(c) $\frac{49}{48} = \square$ (d) $\frac{28}{6} = \square$

14 Convert to an Improper Fraction:

$1 \frac{5}{6}$

Perform the operations (Q15 - Q29)

15 $\frac{1}{5} + \frac{5}{6}$

16 $\frac{5}{8} - \frac{5}{12}$

17 $1 \frac{1}{4} + 2 \frac{1}{5}$

18 $4 - \frac{1}{7}$

19 $\frac{8}{9} \times \frac{27}{32}$

20 $1 \frac{1}{4} \times \frac{16}{5}$

21 $6 \div \frac{1}{3}$

22 $\frac{22}{7} \div \frac{1}{21}$

23 $1 \frac{1}{4} \div \frac{16}{24}$

24 $2.57 + 18.03$

25 $18.03 - 2.57$

26 4×5.02

27 4.5×10.02

28 Round your answer to two decimal places.
 $8 \div 4.02$

29 Convert each fraction to a decimal:
Use the bar for repeating decimals.

(a) $\frac{1}{4} =$ (d) $1 \frac{1}{2} =$

(b) $\frac{2}{5} =$ (e) $\frac{1}{3} =$

(c) $\frac{1}{8} =$

30 Convert each answer in problem 29 to a percent:

(a) (d)

(b) (e)

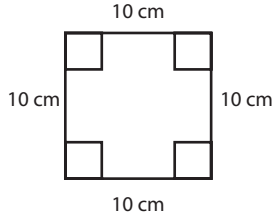
(c)

31 Find 50% of 300.

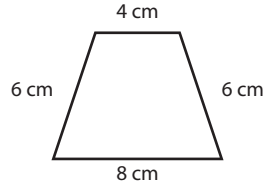
32 Find $33 \frac{1}{3}\%$ of 600.

33 Find 150% of 4.

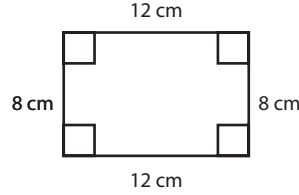
- 34** Name each quadrilateral as a trapezoid, a square, or a rectangle.
(Write its most specific name.)



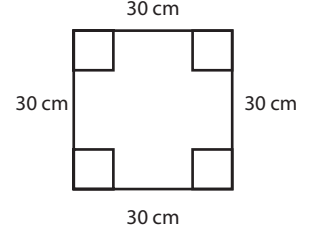
(a) _____



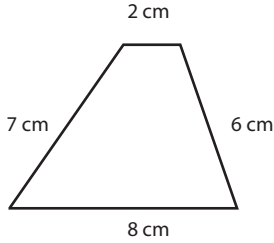
(b) _____



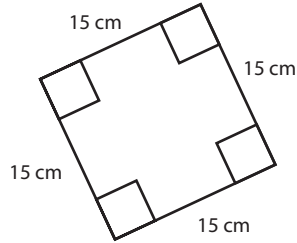
(c) _____



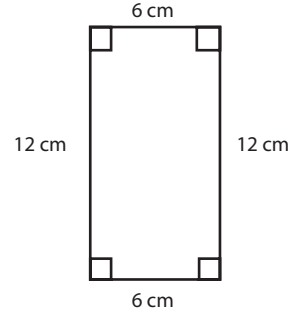
(d) _____



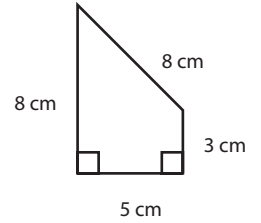
(e) _____



(f) _____



(g) _____

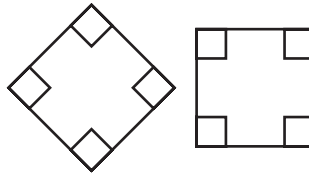


(h) _____

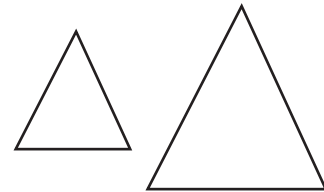
- 35** Do these polygons appear to be congruent or similar or neither? (Write C, S, or N.)



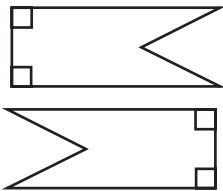
(a) _____



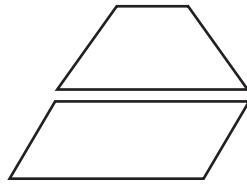
(b) _____



(c) _____



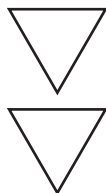
(d) _____



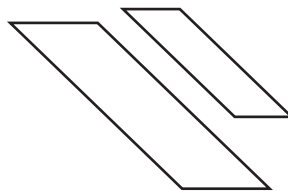
(e) _____



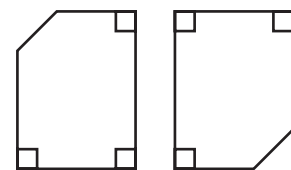
(f) _____



(g) _____



(h) _____



(i) _____

Are you ready for Pre-Algebra? (Answers)

1 7

2 11

3 21

4 6

5 No, it is composite.

6 $18 = 2 \times 3 \times 3$

7 2 Last Digit Even

3 Sum of Digits Divisible by 3

5 Last Digit is 5 or 0

10 Last digit is 0

8 Exponent is 2 Base is 3

9 8

10 7^4

11 1

12 (9) 12 (16) 24 (36) 79 (81)

13 (a) 2 (b) $\frac{8}{9}$ (c) $1 \frac{1}{48}$ (d) $4 \frac{2}{3}$

14 $\frac{11}{6}$

$$15 \quad \frac{6}{30} + \frac{25}{30} = 1 \frac{1}{30}$$

$$26 \quad 20.08$$

$$16 \quad \frac{15}{24} - \frac{10}{24} = \frac{5}{24}$$

$$27 \quad 45.09$$

$$17 \quad \frac{5}{4} + \frac{11}{5} = \frac{25}{20} + \frac{44}{20} = \frac{69}{20} = 3 \frac{9}{20}$$

$$28 \quad 1.99$$

$$18 \quad \frac{28}{7} - \frac{1}{7} = \frac{27}{7} = 3 \frac{6}{7}$$

- 29 (a) 0.25
 (b) 0.4
 (c) 0.125
 (d) 1.5
 (e) $0.\overline{3}$

$$19 \quad \frac{\cancel{8}^1}{\cancel{9}_1} \times \frac{\cancel{27}^3}{\cancel{32}_4} = \frac{3}{4}$$

- 30 (a) 25%
 (b) 40%
 (c) 12.5%
 (d) 150%
 (e) $33\frac{1}{3}\%$ or $33.\overline{3}\%$

$$20 \quad \frac{\cancel{5}^1}{\cancel{4}_1} \times \frac{\cancel{16}^4}{\cancel{5}_1} = 4$$

$$31 \quad 150$$

$$21 \quad 18$$

$$32 \quad 200$$

$$22 \quad 66$$

$$33 \quad 6$$

$$23 \quad 1 \frac{7}{8}$$

- 34 (a) square (b) trapezoid (c) rectangle
 (d) square (e) trapezoid (f) square
 (g) rectangle (h) trapezoid

$$24 \quad 20.60 \text{ or } 20.6$$

- 35 (a) C (b) C (c) S
 (d) C (e) N (f) N
 (g) C (h) S (i) C

$$25 \quad \begin{array}{r} 79 \\ 18.03 \\ - 2.57 \\ \hline 15.46 \end{array}$$