

Pre-Algebra & Geometry

Key Terms Worksheet · 20 Questions · Multiple Choice

Name: _____ Date: _____ Score: _____ / 20

[PRE-ALGEBRA]

Q1 Variable

■ VAR = Varies | Variable = letter for unknown number

Which of the following is a variable in the expression $3x + 7$?

■ A variable is a letter that represents an unknown number.

A) 3

C) x

B) 7

D) +

Q2 Coefficient

■ CO-efficient = number in FRONT of the variable

In the term $5y^2$, what is the coefficient?

■ The coefficient is the number multiplied by the variable.

A) y

C) 5

B) 2

D) $5y$

Q3 Constant

■ CONSTANT = never changes (no variable attached)

In the expression $4a - 9$, which part is the constant?

■ A constant has no variable attached to it.

A) $4a$

C) 4

B) a

D) -9

Q4 Expression vs Equation

■ Equation has = sign. Expression does NOT.

Which of the following is an EQUATION (not an expression)?

■ Key difference: equations have an = sign; expressions do not.

A) $3x + 5$

C) $x + 4 = 10$

B) $2y^2 - 7$

D) $6a - b$

Q5 Like Terms**■ SAME letter + SAME exponent = Like Terms****Which pair are LIKE TERMS and can be combined?****■ Like terms have identical variable parts (letter + exponent).** A) $3x$ and $3y$ C) $7a$ and $-2a$ B) $5x^2$ and $5x$ D) $4b$ and $4b^2$ **Q6 Order of Operations****■ PEMDAS: Parentheses → Exponents → $\times \div$ → $+-$** **Evaluate: $2 + 3 \times 4$** **■ Multiplication comes BEFORE addition!** A) 20 C) 11 B) 14 D) 24**Q7 Distributive Property****■ $a(b + c) = ab + ac$ → Distribute = spread out****Simplify: $3(x + 5)$** **■ Multiply the outside number by EVERY term inside the parentheses.** A) $3x + 5$ C) $x + 15$ B) $3x + 15$ D) $3x + 8$ **Q8 Inequality****■ $<$ less $>$ greater \leq less-or-equal \geq greater-or-equal****Which value of x makes $x + 3 > 8$ true?****■ Solve like an equation first, then check the direction.** A) $x = 4$ C) $x = 6$ B) $x = 5$ D) $x = 3$ **Q9 Absolute Value****■ $|n|$ = distance from 0 = always ≥ 0** **What is $|-12|$?****■ Absolute value strips the negative sign.** A) -12 C) 0 B) 12 D) -1 **Q10 Prime vs Composite****■ PRIME = exactly 2 factors: 1 and itself only****Which number is PRIME?****■ Check: can it be divided evenly by anything other than 1 and itself?** A) 9 C) 21 B) 15 D) 17

[GEOMETRY]

Q1
1 Complementary
Angles

■ C comes before S → Complementary = 90°, Supplementary = 180°

Two angles are complementary. One is 35°. What is the other?

■ Complementary angles add up to 90°.

() A) 145°

() C) 65°

() B) 55°

() D) 45°

Q1
2 Supplementary Angles

■ Supplementary = Straight line = 180°

Angle A and Angle B are supplementary. Angle A = 112°. Find Angle B.

■ Supplementary angles together form a straight line (180°).

() A) 68°

() C) 88°

() B) 78°

() D) 48°

Q1
3 Perimeter

■ PERI = around → add all sides

A rectangle: length = 8 cm, width = 3 cm. Find the perimeter.

■ Perimeter = distance all the way around the shape.

() A) 11 cm

() C) 22 cm

() B) 24 cm

() D) 16 cm

Q1
4 Area

■ AREA = inside space. Triangle: $\frac{1}{2} \times \text{base} \times \text{height}$

A triangle has base 10 m and height 6 m. Find its area.

■ Triangle Area = $\frac{1}{2} \times \text{base} \times \text{height}$

() A) 60 m²

() C) 16 m²

() B) 30 m²

() D) 20 m²

Q1
5 Parallel Lines

■ Parallel = same direction, never meet. Alt. interior angles = equal

Two parallel lines cut by a transversal. Alternate interior angles are:

■ Remember: parallel lines create special equal angle pairs.

() A) Supplementary (180°)

() C) Complementary (90°)

() B) Equal (congruent)

() D) Always 90°

Q1
6

Types of Triangles

■ EQUilateral=all equal | ISosceles=2 equal | SCALene=0 equal

A triangle has sides 5 cm, 5 cm, and 8 cm. What type is it?

■ *Classify by the number of equal sides.*

- A) Equilateral C) Isosceles
 B) Scalene D) Right

Q1
7

Pythagorean Theorem

■ $a^2 + b^2 = c^2 \rightarrow c = \text{hypotenuse (longest side)}$

A right triangle has legs $a = 6$ and $b = 8$. Find hypotenuse c .

■ *Only works for right triangles. c is always the longest side.*

- A) $c = 10$ C) $c = 7$
 B) $c = 14$ D) $c = 12$

Q1
8

Circumference

■ $C = 2\pi r$ (use r , NOT r^2 — that's area!)

A circle has radius 7 cm. Which expression gives its circumference?

■ *Circumference = perimeter of a circle. $\pi \approx 3.14$*

- A) $\pi \times 7^2$ C) $\pi \times 14^2$
 B) $2 \times \pi \times 7$ D) $7 \times 7 \times \pi$

Q1
9

Volume

■ $\text{Volume} = l \times w \times h$ (3 dimensions). Unit = cubic (cm^3)

A box is 4 cm \times 3 cm \times 5 cm. What is its volume?

■ *Volume measures 3D space inside an object.*

- A) 24 cm^3 C) 47 cm^3
 B) 60 cm^3 D) 120 cm^3

Q2
0

Congruent vs Similar

■ CONGRUENT = same size AND shape | SIMILAR = same shape only

Two triangles have the same angles but different side lengths. They are:

■ *Shape matters for similar; shape AND size matter for congruent.*

- A) Congruent C) Parallel
 B) Similar D) Equal

ANSWER KEY

Q1: C

Q2: C

Q3: D

Q4: C

Q5: C

Q6: B	Q7: B	Q8: C	Q9: B	Q10: D
Q11: B	Q12: A	Q13: C	Q14: B	Q15: B
Q16: C	Q17: A	Q18: B	Q19: B	Q20: B