

Christ the King Diocesan High School

AQR

Summer Math Packet

This packet will help you review basic algebra concepts.

- Please show all your work. No work No Credit!!!  
( if you need more room use loose leaf paper to do your work and staple it to the corresponding worksheet)
- Do not wait to do all of the worksheets at one time.
- This packet will be due on August 16, 2024

**Solving Equations****Solve each equation.**

1)  $1 + 4n - 5 = -8$

2)  $10 = 5x + 5x$

3)  $-12 = -5m + 3m$

4)  $15 = -2v + 5v$

5)  $15 = v + 6 + 5$

6)  $5n + 5n = -10$

7)  $4 + n + 2n = 16$

8)  $9 = v + 2 + 5$

9)  $b - 4 - 2b = -8$

10)  $1 = v + 5 - 5v$

**Combining Like Terms****Simplify each expression.**

1)  $-4v + 2v$

2)  $4p - 9 - 8p$

3)  $x - 4x$

4)  $p - 5 + 4 - 9p$

5)  $8n - 7 - 6n$

6)  $1 - 4p - p$

7)  $8x - 4x$

8)  $10p - 2p$

9)  $p + 1 + 10 - 9p$

10)  $-9r + 5r$

## Factoring Trinomials

Factor each completely.

1)  $p^2 + 3p$

2)  $r^2 + 2r - 8$

3)  $n^2 - 17n + 70$

4)  $x^2 + 7x + 12$

5)  $a^2 + 2a - 24$

6)  $7m^2 + 62m + 48$

7)  $2x^2 - 11x - 63$

8)  $3n^2 + 13n - 56$

9)  $7x^2 - 15x + 8$

10)  $2x^2 - 17x + 8$

**Evaluating Functions****Evaluate each function.**

1)  $g(x) = 2x + 4$ ; Find  $g(-8)$

2)  $p(n) = 3n$ ; Find  $p(1)$

3)  $p(n) = 3n + 2$ ; Find  $p(7)$

4)  $w(n) = 2n + 1$ ; Find  $w(9)$

5)  $h(n) = 3n$ ; Find  $h(2)$

6)  $g(n) = 3n + 3$ ; Find  $g(0)$

7)  $h(x) = 3x + 2$ ; Find  $h(-3)$

8)  $w(n) = 2n - 3$ ; Find  $w(-4)$

9)  $g(x) = -x + 1$ ; Find  $g(0)$

10)  $f(x) = 2x$ ; Find  $f(7)$