

3. Comparison of Integer Operations (DDA vs Bresenham)

Computational Comparison

Aspect	DDA Algorithm	Bresenham Algorithm
Arithmetic Type	Floating-point+Integer	Only Integer
Additions	More	Fewer
Multiplications	Required	Minimal
Rounding	Required	Not required
Speed	Slower	Faster
Accuracy	Less precise	More precise

Conclusion of Comparison

- **DDA** uses floating-point arithmetic and rounding, which increases computation.
- **Bresenham's algorithm** relies on integer additions and comparisons only, making it **faster and more efficient**, especially in real-time graphics.