

Floyd's cycle detection Algorithm.

$m > n$
 \therefore Because the
 distance traveled by
 f > s.

| | | | | |
|---|---|---|---|---|
| 5 | 4 | 6 | 7 | 8 |
| 0 | 1 | 2 | 3 | 4 |

$N=5$

$$d_f = 2d_s$$

$$A+B+m(B+C) = 2(A+B+n(B+C))$$

$$m(B+C) = (A+B) + n(B+C)$$

$$(m-n)(B+C) = A+B$$

$$A+B = k(B+C)$$

Suppose $k=1$

$$A+B = B+C$$

$$A = C$$

Suppose $k=2$

$$A+B = 2(B+C)$$

$$A = (B+C) + C$$

Suppose $k=3$

$$A+B = 3(B+C)$$

$$A = 2B + 3C$$

$$A = 2(B+C) + C$$

