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## Naive algorithm

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x l u x t p x t d q w t d x t p x t s y x t p x t d y

x t p x t d

↑

Align both strings at their beginning position and begin comparing

Comparisons: 1



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## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols don't match, advance  $P$  by one position and begin comparing from beginning of  $P$

Comparisons: 3

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## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols don't match, advance  $P$  by one position and begin comparing from beginning of  $P$

Comparisons: 4

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## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols don't match, advance  $P$  by one position and begin comparing from beginning of  $P$

Comparisons: 5

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## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
          x t p x t d  
          ↑

If symbols match, compare the next symbols in both  $P$  and  $T$

Comparisons: 6



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## Naive algorithm

---

x l u 

x	t	p
x	t	p

 x t d q w t d x t p x t s y x t p x t d y  
x t d  
↑

If symbols match, compare the next symbols in both  $P$  and  $T$

Comparisons: 8





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## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
          x t p x t d  
          ↑

When full match is found, mark  $P$  as found in  $T$ , advance  $P$  by one and compare from beginning of  $P$

Comparisons: 11

---

## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
          x t p x t d  
          ↑

If symbols don't match, advance  $P$  by one position and begin comparing from beginning of  $P$

Comparisons: 12

---

## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
          x t p x t d  
          ↑

If symbols don't match, advance  $P$  by one position and begin comparing from beginning of  $P$

Comparisons: 13

---

## Naive algorithm

---

x l u 

x	t	p	x	t	d	
	x	t	p	x	t	d

 q w t d x t p x t s y x t p x t d y

↑

If symbols match, compare the next symbols in both  $P$  and  $T$

Comparisons: 14

---

## Naive algorithm

---

x l u 

x	t	p
x	t	d

 q w t d x t p x t s y x t p x t d y  

x	t
---	---

 p x t d  
                                  ↑

If symbols match, compare the next symbols in both  $P$  and  $T$

Comparisons: 15

---

## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
                  x t p x t d  
                  ↑

If symbols don't match, advance  $P$  by one position and begin comparing from beginning of  $P$

Comparisons: 16

















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## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols match, compare the next symbols in both  $P$  and  $T$

Comparisons: 25

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## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols match, compare the next symbols in both  $P$  and  $T$

Comparisons: 26

---

## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols match, compare the next symbols in both  $P$  and  $T$

Comparisons: **27**







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## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols match, compare the next symbols in both  $P$  and  $T$

Comparisons: **31**





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## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols don't match, advance  $P$  by one position and begin comparing from beginning of  $P$

Comparisons: 34

---

## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols don't match, advance  $P$  by one position and begin comparing from beginning of  $P$

Comparisons: 35

---

## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols don't match, advance  $P$  by one position and begin comparing from beginning of  $P$

Comparisons: **36**







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## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols match, compare the next symbols in both  $P$  and  $T$

Comparisons: 40

---

## Naive algorithm

---

x l u x t p x t d q w t d x t p x t s y x t p x t d y  
x t p x t d  
↑

If symbols match, compare the next symbols in both  $P$  and  $T$

Comparisons: 41

