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 E M S L A Q M K S F T K E F V A P K D Y P T K P L H G R N W K N F F V V I E R D

W D D A D T R A S H R M L V D A S T L S E T P L H Q A D P L N L F V V V E A G  
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W G P E Q I A A S A T M N A G Y V A A P A P V W D A D P M N I T L V V E T G  
 Q W T A T D M A V S R V Q Y V A E A S L P A S A Q L G V D P H N L F V V V E A G  
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 E W S M K Q A Q D S L E V L I D E K T L P S K P T Y K I D V Y D L M V V M A R D  
 Q W T L Q D I R D S L E V L V D E S K P P D K P V Y D G D V R D L M A I M Q R G

D D I M D I H M V I E R D  
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 D L G L V V E R A

D L G V V I E R A  
 D L G L I I E R A  
 D L G V V I E R A  
 D L G V I V A R A

S A D Y I Q S T L R V L V P E D Q L P S K P T N I N D L D W I A I L L I E S R  
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 L V H G M G F S P D H K T L A V V S I G  
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QUERY  
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 S G Q V A L I D G A S Y K I H A V I D T G Y A V H I S R I S A S S G R Y L F V I G  
 T G E V A L I D G D T K Q I I N I V K T G Y A V H I S R L S A S S G R Y L F V I G  
 S G E V A L I D G D S K Q I I N I V K T G Y A V H I S R L S K S S G R Y L Y V I G  
 T G E V A L I D G D T K E I R S I V K T G Y A V H I S R L S K S S G R Y L Y V I G  
 D G T I A L I D G D T K E I I N I V K T G Y A V H I S R L S A S S G R Y L Y V I G  
 V G K V A I V D G D T K K L V S L V D T G F A V H I F R S S G T G R Y F L T I G  
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 D H H V T I L D G D K F E P I H R F P S R F A L H G G K F T P D G R Y V F F A S  
 S H H M T V L D G D R L A P V H R F A T R F A L H G G K F S R D G R Y V Y M A S  
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 D H H V S V L D G D S W D V L D R F E T P F A V H G G K F T P D G H F V F V M S  
 D H H V S V V D G D H F T R L A R F Q S R F A L H G G K F S P D G R F V Y F A S  
 A G K L A L V D G D T H K I W K I L D T G Y A V L I S R L S A S G R Y V Y T V G  
 N A K T V F L D G K T N Q V V G E I A T P I A P H I M D F S P N E R W A W L K S  
 A A R V V F F D G K T N K Q V G E V P T D Y A P H I L D Y D P N P R W G Y L K T  
 N A S V S Y Y D Q A N H E N L G R I D V G H A I H V V E F H R D G A Y A Y T M A  
 D H H V T I L D G D R F E P L T R F Q S H F A L H G G K F S P D G R F V Y F A S  
 S G H I R I V E N S T H T Q L A N V G L G D L S H A A V F S R D G R F A Y V F G  
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 S G R L A I V D T S A R T L L G E V G L G D L S H A V V F S R D G L H A Y V F G  
 N S S V V V V D S L K H E I L G R I D L G V L H H A I S F S Q D A R Y A Y I I S  
 Y H E Y T F I L D M K N F K V L K R V K A G D R V H V V R F G R E E R F A L G M S  
 S N S V S F I D T E S N A V K H V T Y V G R S P H E A F F R P D G K E V W V S V  
 A D T V S V L D A S L K T L N V R V G K M P H N V Q V S P D G K L A W L M G  
 S N S V T F I D T A T N A V K H T T Y V G R S P H E A F F T P D G N E V W V T V  
 S N N V S V I D T T A N T V V S T V N T G K Y P E G V A V S P D G K K I Y V T N  
 S D A I Q V I D A G T L N V T G T L P A G K D P E T F A M D P D D R F L Y V S N  
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QUERY	90	100	110	120
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UniRef90_D1L918				
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UniRef90_Q1LI23	D D G Y V Y K I D L Y S L K V V R K I K T G L T G P G I A V S N D G			
UniRef90_B6ZL06				
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UniRef90_M4X2C7				
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UniRef90_Q17UY7				
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UniRef90_A7X839				
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QUERY	130	140	150	160
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UniRef90_A8UXC3	K I A I A G T Y W P P Q F V L M D G D T L E P K K V V G T R G M D I N N E Y H			
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UniRef90_B0F886	Y W P P Q Y V I M D G S L E P L Q I V S T R G M T V D T K E Y H			
UniRef90_B0F8M6	Y W P P Q Y V I M D G A T L E P M K I V S T R G M T V D T Q E Y H			
UniRef90_E9LGM7	W P P Q Y V I M E A D T L E P M Q I V S T R G M T V D T Q E Y H			
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QUERY  
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T T Q I E S T A K Y F L H D G G G F D A S S K R Y F M T A A N A S D K I A V V I D D T K E S K  
H L I D A E R F F L H D G G G W D L S K R Y F L V A A N M R N K I V V I D S T V E K K  
T S M A A E K F F L H D G G F F D P T G R Y F Q I A A N A S N K M V V I D S T K T Q R K  
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S R F G I G E Q P Y D A L L T P D G R Y Y M A G L F G E D G M A Q L D L L K E H P  
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T K T D I G V F P Y D A L L V T G D G R H Y I V G L F G E D G L A H V D W K E P L  
E R Y P A G K Q P Y D A L L V T P D G R Y Y I A G L F G E D G L S M L D L W Q P G  
T Q L P I G R Q P Y D A L L V T P D G R H Y I A G L F G E D G L A L V D L L W A E T  
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S T I P A V P S L H D G G G F D Y S G S Y F M V A A N A N K M V I V D L L K N Q T  
K K W D I G K M P Y D A L L T P D G R Y Y I A G L Y H S R H L A M L D L L W E L D  
H T T G I G K S P H E N K L L D K V G R Y V A V T G Q E S S T I T I L D V E N F E  
I D T G P T N P V N I V F R N P K G Q F A Y V T I G G L N A I K V F D T S D Y R K  
A Q V P T G K P A Q T G F P D G R L A F A S T L S G G E N A I A V I D P A T R K  
T I D T G P I T N H N I V H N A N G E F A Y I S V G G L N E V K V Y R T D N F E  
S T I P V G P P V G I S V I P D G R K V Y V A I N F Y N T V S V I D A T N A  
I S F P V K V Q P V G I R I D P D R R Y A Y V A L G P A N T R V A V V D A Q K L E  
M L L L S P D G S L L Y V A D D A G F V D T V S V I D T A T N T

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I A A L V D A E K I P H P G R G A N F V D P E F F G P V W Q R V I P L G G D D E T V S T  
S I T D I P I P G M P H L G S G I Y W K R N G E W V F A T P N I S K G L I S T S  
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R G V Q R V L G D Y G R G Q A K L P V Y K M P H L E G W A V A D N Q A F V P A  
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L E A M I D V D K I P H P G P G A N W N D G E C G P V A G T T H L L G V I G K V T  
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V T A T M L V G N S P Y A S G Q F I G S I P I Q P V Y P L A N F S S N I T S  
V K D Y L V G Q R V W  
Y V I D V I E G A P D P L G L A I S P N G T Y L Y V A N F G N Y A Y N T L T







QUERY UniRef90\_V9QV89 UniRef90\_Q5LL09 UniRef90\_H5WUA6 UniRef90\_UPI0003667D2D UniRef90\_B8R909 UniRef90\_B9MSW2 UniRef90\_A8UXC3 UniRef90\_R4YN15 UniRef90\_K7X131 UniRef90\_B0F8P3 UniRef90\_F5A953 UniRef90\_B0F886 UniRef90\_B0F8M6 UniRef90\_E9LGM7 UniRef90\_G1DEA1 UniRef90\_B0F6V1 UniRef90\_D2DLY1 UniRef90\_B0F718 UniRef90\_A5YKQ5 UniRef90\_K1DE90 UniRef90\_G7WZZ3 UniRef90\_G1DTG2 UniRef90\_B0B1D9 UniRef90\_Q84211 UniRef90\_M4YQ10 UniRef90\_Q1ELB4 UniRef90\_D3JW28 UniRef90\_V5LDT3 UniRef90\_G1FV41 UniRef90\_B0B1C6 UniRef90\_V5LEF0 UniRef90\_D3JW21 UniRef90\_D1L8Y9 UniRef90\_D3JW19 UniRef90\_Q31D1 UniRef90\_B6ZL07 UniRef90\_Q84B41 UniRef90\_A1XTY2 UniRef90\_UPI0003B77B61 UniRef90\_H8ZCY3 UniRef90\_W6M9Y4 UniRef90\_Q8BF88 UniRef90\_G1DEL5 UniRef90\_B3RCK9 UniRef90\_Q1WJK9 UniRef90\_Q47WE3 UniRef90\_G1DTF6 UniRef90\_A5YKT0 UniRef90\_Q8BFG4 UniRef90\_G1DEL1 UniRef90\_Q8BFJ2 UniRef90\_D3UJQ3 UniRef90\_A8LLZ6 UniRef90\_UPI0003780A16 UniRef90\_Q84B37 UniRef90\_G8GQG6 UniRef90\_Q8RLS1 UniRef90\_D1L918 UniRef90\_Q8BFA0 UniRef90\_Q1LI23 UniRef90\_B6ZL06 UniRef90\_A7X883 UniRef90\_M4X2C7 UniRef90\_Q00IW8 UniRef90\_V5LEW6 UniRef90\_I6SUU2 UniRef90\_M0L1A4 UniRef90\_G8GQN4 UniRef90\_W9TRH9 UniRef90\_Q17UY7 UniRef90\_UPI00037A9DB0 UniRef90\_Q68AR1 UniRef90\_UPI00035CAEEB UniRef90\_A0A024E3M1 UniRef90\_Q68AR2 UniRef90\_G1FV22 UniRef90\_A7X839 UniRef90\_UPI00047BDCE5 UniRef90\_G8PJP6 UniRef90\_UPI000366F168 UniRef90\_B1Y7X0 UniRef90\_B0F751 UniRef90\_A1XUD8 UniRef90\_S0FVT5 UniRef90\_A3MXH0 UniRef90\_A7IBX5 UniRef90\_A1W604 UniRef90\_J2AQW0 UniRef90\_Q465V8 UniRef90\_Q609F6 UniRef90\_G8RV33

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 E E G K A A L H M E F N D D D G T E V W V S V W N R V D P T G E I V V Y D  
 A G I K E G P R R V V V Q P E Y N K A G D E V W F S V W N G K E E E S A I V I V D  
 A E L G E G P K R V V V Q P E Y N K A G D E V W F S V W S G K E E E S A I V I V D  
 A N L G E G P K R V V V Q P E Y N A A G G D E V W F S V W N G K D Q R S A I V V V D  
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 S G L G E S A K R I V V Q P E Y N K D G D E V W F S V W N G K D Q Q S A I V V V D  
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 A K L D D G A K R V V V Q P E Y N Q K G D E V W F S V W S A M N K K S A I V I V D  
 A N L G E G P K R V V V Q P E Y N A A G D E V W F S V W N G K D Q R S A I V V V D  
 A K L G E G P K R V V V Q P E F N A A G D E V W F S V W N G K E Q K S A L V I V D  
 A G L T E G A R R V V V Q G E F N K A G T E I W F S V W N A K N Q T S A I V V V D  
 A G L P E A I R A V H P E Y N V N G D E V W L S L W G G K K D P S A I V V M D  
 S G I E E G Q R R V V V Q P E Y N K D G T E V W F S V W I A Q D E E S A I V I V D  
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 S G L G E G A K R V V V Q P E Y N K A G D E V W F S V W S D E N Q Q L V I V V H D  
 A D I G E G P K R V V V H P E Y N K D G T E V W F S V W S G K E R E S A I V V V D  
 S G L G E G A K R V V V Q P E Y N L A G D E V W F S V W S A K N Q E S A I V V V D  
 S G I T E G V R R V V V Q G E Y N K D G T E V W F S V W N G K D E E S A I V V V D  
 A D V G E G P A R V V V Q P E Y N K A G D E V W F S V W N G L D Q V S A I V V V D  
 L R P M P G K N A A H V E F T N D G S H L I L S V W D T E G A L I V V D  
 A E L G E G P K R V L H P E Y N K K G D E V W F S V W S G M E E E S A I V V V D  
 L R P E P G K T A A H T E F T R D G K Y A L V S I W E N D G A L V V Y D  
 S G I K E G V R R V V V Q G E Y N K N G D E I W F S V W N A K E Q E S A I V V V D  
 A G I A E G Q P R V V V Q G E F N Q A G N E I W F S V W N A K D  
 S V T P S P G R T A A H V E F T R D G R Y A L V S L M E R D G A I V I Y D  
 S G L P E A I K R A V H P E Y D A T G T E V W I S L W A G K T E P S A I V V M D  
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K T I V M T G A G A H G V V V D P D D G R Y A Y V S T N T Y A N M V S V V V D V K D R N A  
K Q L K V G G V E P E G L V T T S P D D G K W V I S A S E T T N M V S H V I D V A K T N A  
G S T P V T T G I T S D D G K T L A V T L N A E N A L A I V D L  
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U N I E P E G M A A S P D D G R V V V N T S E T T N M A H W L D T S T N T D A D  
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D T L P S G E D P E Q F A L H S P N N K H L Y I A N E D D A G T V T V V D S V A S S K E S  
K T I R T G Q G A H G V T V S D D G D F A F V T N I I A A G T V S R I D V A S S Q S  
A I Q A V G I A L S D D G N T A F I C L G P A N R V A V V D A H T Y D  
A Q I P L G K M P A Q V I G F S D D G K L V F V S L S G S G A N D A V A V I D D T A T R K A  
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T I A V G Q S P S G L A V S P D D N R W L Y V A N R L G N S V S K I D L K N W T K  
I T F D I P I Q P V G I R F S Q D D G A K A F V A L G P A N R V A V I D V A S S R K  
N T I N V G T E P V G I D I T S P D D G T R I Y V A V N K V S D N V S V I N V A T N I  
A T I P V G D Y P R G V R I S P D D G K R V Y V T N S G S N S V S I I N T D A N T E  
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L S F Q I K G V H P G D V R L S A D D G S R V Y V S N G G D G N V S V I D A K T Q K  
K K I P V G L R S N G V K V S A D D G S R V Y V S N G G D G N V S V I D A K T Q K  
D S R P R V J A Q F S G D D G K H V W V S S E I G G T V S V I D A A T S R K  
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G D I Q V G V E P E G M T I S P D D G K L I N T S E T T N M A H F I D T T T R Q  
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A T T E V G D G P A G V A V L P D D G R R V Y V A N T V G D D V S V I D D T C R N E  
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S D T V T V I D P A T Y R I V E T I P V G R Q P Q H V V P S W D L K T L W V N N  
A D T V S A L D P A T G E L V G R F D A G D F P T H E N R Y S A D D G T I Y V I A  
S N T V S V L D L V Y L R Q D R L R V G H Q P T G I S V N P Q T N E V I V N  
D K T V K I W D I N S G K S L K T L G H S H A V R S V T Y S P D G K R L A S A S  
T R E L V F R D P H T M K V A K T V P V S Y G V N H A D F S L D G R Y F I V S C  
T N H V V V D G L A G K I L D T I V T A N G P S K V V F S P D G T A Y V N H  
D R T A R V W N A D T G E P L V L R G H E E D I H V A A F S P D G K S I A T A S  
D G T V S V I D Q H T L R V V A T Y P T G R G P Q H V V P S W D L R T L W V N S  
D I S V L D M T D Q I V R R I A T G P A P N Y T L R E G D R A Y V S S  
S G S V S V I D A T R W V E E R R I A T G K E P H H L Y M T P D E K S V I V A N  
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S G T V S V I N P A T N T V T G S L I G N G P S G V A V S P V T G L V F V T N  
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V D H V T V V D G D G G V L E T I P S Y G G P S K V L F S P D G T Q A Y V N H  
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N S A L A V I D H N L E I K N M H N F N H A V V K F K G N D G Y V I T  
H K V A V I D L A R R T I S G F I D L S R A P H S G Q L G R D G K V Y L C C E  
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D Q T V R L W D V A T R K P L G E P L R G H E V Y S I T F S P D G K V L A S G S  
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UniRef90\_M3C1Y9  
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UniRef90\_U5VVH7 [V] A E F S P D G K R [L] [V] T A S A D R T A R [V] W N A D G T G E P [L] V

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370

380

390

400

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A E K [L] E [V] T K Q [L] E [V] K N M P

R E T Q R [I] V [S] T [V] K  
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A S T Y Q P [V] R Q F D G [L] P [L]

A T T R Q [V] V [K] R [L] P

[V] N S G Q [L] L [K] T [L] T G [V] R S [V] T P D G K

T Q S G Q [L] I [R] T [L] Q G K K S N [V] Y

[L] H T [L] S [L] V [H] T F T G  
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P G S R A [L] L [T] E [L] P T D G [V] P  
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T E T W E [L] K R

P K T G E [V] I [R] T [L]

1 10 20 30 40

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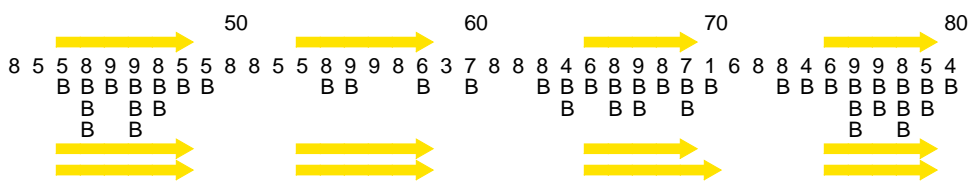
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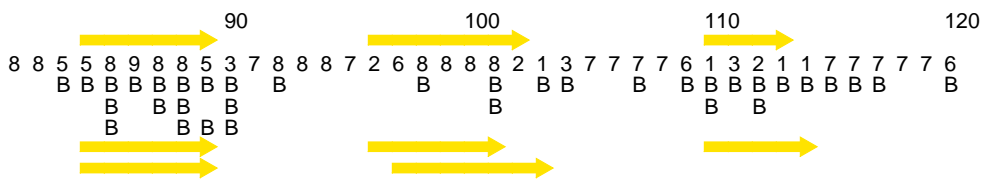
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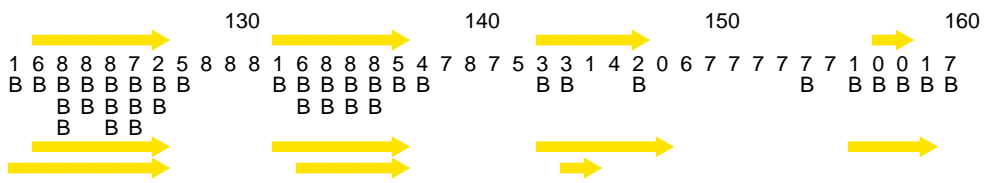
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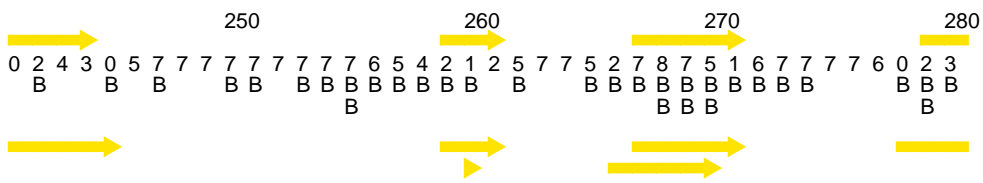








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