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 20 V G Q L Q R Q F T D Y T S A L F R E G F L D D D Q F F T Q L Q Q K L Q Q D D D T S N P  
 30 V V V Q L Q R Q L D Y R A S L Y H E A F L D D E Q F F T Q L Q Q K L Q Q D D D T S N P  
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N F V E E V V T L C Y F R D S S Y R L L N E Q A L Q K S P L D F F N Q V L D D S N Y I Q  
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N F I S E E V I T L F C E D G E R I L L N E L A K L L D K P C V D F F D R V L D A I A H  
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Q F V M E V I S M F C C Q C A E I G V A E I T R F L N A P V V V D F F A R K V I N F V H  
N F V E E V S A L Y F K D S S A R L L E I D Q A L E R G S F D F F N K V L D D S Y M H  
N F V E E V V T L H Y R D S S A R L L T T L E R A L E E K S P L D F F N K V L D D G Y M H  
N F V E E I V T L F F R E S T K M L A T M E T N L E K C P V D F F I G I D K M L N  
D F I V K V V T L F F C E D G E C I I G E I A K L L D K P C V D Y D K V S G F V L  
S F V V E V A S L F L T D S E K L L E D L A S D L V R Q D V D F F Q R V D D A H V D  
N F A E E V M T M Y F R D S T K L I A F E N A L P F N F I V L D K Y H  
N F V V E V S I Y F R E S E K L L T T L R A L L E R E C T D Y K K M G T H L N  
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D L V K S L I A D L Y F E D N A P V L I S A N V T K E G L E S E A P E K D A D Q V L F S K S A H  
G F S Q S L F V Q Y F E D Q A D T T T F A Q A I Q R K E A E S E A P E K D A D Q V L F S K S A H  
D I V A E V L G G L F E D H A D P Q K I L K A L K E A L E N G D A E L A K A L Q V L F S K S A H  
E F S K P L I M G F F E D Q T A E T F F A D K M D V A L K Q K N L K E A L G M A A H  
A L V S K V I D A Y L A D A E P R F F Q Q M E E A I A E A S G D A E A L R K A A H  
D F S S E I V S D Y F E Q A A E A T F K Q M E E A I A E A S G D A E A L R K A A H  
E F S R S L V W N Y F E Q A E A T T L E E L N D A L A E Q K A D F K S E L S S T L G H  
D L I Q V V M R S F I A S F P E R I A E L T A A Y Q S R D G E K I R R A V G H  
G F A D R V L E M F V D S A G E K L L A S F A E A A D T G D A P T M Q R R A A H  
S F L R V V T R Y L Q G V E G M L T D L E R F L Q Q Q G D T V Q T F A R V A H  
N L L I R V F Q A F L D T A E S L L A E Q I L E T A V L A A K E T D S L R R S A A H  
A D I L T R I I S I Y L E E A P N Q M D S L R Q A L A A E R N K D A T E A V R S A A H  
E V L G K I I N T Y L E E A P R L L G E I N A A I A A R N G K D P A A L V L A S H  
E F E L H L L Q M F V E D I Q S R Y L A L I K Q A V A A S N F G D N I F L E I A H  
R N I N W L D L F M N E L P R Y L N E L E Q Q A V A I I G D L S D N I F L E I A H  
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K Q M L R V L R Q V L D T A P T L I A Q N L H Q A V E Q R T S G D G H A I Q Q A A H  
P F M K R M F T V F I L S Q E A P K R L I Q N L R D A L L T S G D V E K L R H L A H  
E F S K S T V Y D F F T Q A E G T F E Q M H T N L T K R E D L N Q L S A L G H  
E L L R K L A Q A Y I H Q D S P A T V D R M L T A T S A E D L A E V I R R A A H  
F G L L I D T F I L Q D S N D R I L L R E V V S G T E A D P P T A L K Q A A H  
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D E V I D I Y L E T A P K L L E D I G I S L A S A D L A L R P A A H  
E F M G H L K Q V F Q Q N A E Q T F K S L S L S E S N D A D A D V R K L L A H  
E F E R E L I T S V I T S V E E H L P E L S K A F E D K N T K D A L L H S H  
F I D L I N T Y M S D S E Q R L E E M Q V A F D N D D N R M G F E A S H  
R F S R S I V F G F F E Q A E Q T F V K M D D A L E E K K D L A T L S S L G H  
E F S K S L V Y D F F T Q A E S T F Q K M D A N L E E K K D L A T L S S L G H  
E D W Q E M I Q T Y R Q D S Q A L L G S L R Q A L E S R D V Q Q T V A Q L A H  
E F L F E T I D Y Y I Q S E T P K V L D D D I H I Y L M K Q N N Y Q P L R R S T G H  
G F S Q Q L V E T Y I S E S P D L I Q R M D K A V I Q N D A L A L E H N A H  
A V L K Q L V D T Y I S E S P D L I Q R M D K A V I Q N D A L A L E H N A H  
S S L R T A I E M F L E D A A Q N H L L G T A L E E E N Y P H L N T H V A H  
D Y V R A I V T S Y C L S A Q N L F S H L T Y H I C P E V D Y H Q V N T A C  
S I T E L I Q L Y L E E D T P A K I Q A I Q D A A T L E D R S Q L A R I A H  
E S I V E G M Y S V Y L S E T V E R L E V L K T L M K N R N Y H E I D N Q A H  
L L R R I V A A F Y S D T P S H L L E L R S A V E K K D Y V V A R R L A H  
E F L A Q L V Q G F I A D G E T H I Q R I A A A N G E D Y L T L R E S L H  
E A L E E V I E I Y L E E S P K L T D K L T V A I A A Q D N S F F E L Q E A A H  
E F S K P L V L G F F E Q A E E T F E K M D T A L A A K N S L N E L S G L G H  
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A I I S E F L R D F R A S A R I A A D L R T A A Q A G D A A T V G A A H  
S L L E K S I S L Y L Q T A P D L A A D I R R A V K N R Q A D D L R K A A H  
D V R S L I D A F C E A Q D G L V D A I E N A V S S A D Q D Q I R K T S H  
E F I L E T I D Y Y A E T P K L L L Q D A I H T Y L E Q Q K Y A N L K T S H  
K F E L I E L L K L F V E D S V S H L L E R I K T A V L S H D F Q Q I G R E A H  
G F S Q S L L T Q F F E Q A Q Q S T F E K M E A H I N T D K N L D Q L G Q L G H  
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G F S Q S L L T Q F F E Q A T S T F N Q I E Q H I K T D K N L D Q L G Q L G H  
K L I E R V I A A Y L K S L V D R G L A P E L A Q A R G E Q R L D L Q V V R H V S H  
D M M P V V I S V F V E V G G Q L A Q L R P L F D V R D W T V L A R L A H  
E F S K G L I I Q F M E Q A Q T T F D K M Q L N L D T T R D L S D L D S L G H  
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L L V Q K V I A A Y L A D T P P R F E H L R A A A D A D A G D A E A L R K A A H  
V L L D T F L A D S T E R R F E Q I L Q D S Q R L A D S Q A L R L A A H  
D F S K G L V F G F F E Q A E A T F E K M E K A L A K N D F D D L S Q L G H  
G F V A E A V N L F I R E A D R I L A E L A G L M K Q P V V D V D K A D A L  
D L A A E I H R A F L G D L P R Q L R A M L E D L M K Q P V V D V D K A D A L  
D L V N R L V E S F L K R A P Q H V A A L A E A Y A S G D R S T F E D Q A H  
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E I I K G Y L Q D T A L R I E T M N K A I E K R D T E Q L Y Q A A H  
E L M R E L L Q A Y T D T V P A R I E A V K Q H F A A G E A H K A L A D E A H  
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D F S E P L V N F F E Q A Q D T F E K M Q A L A S R D L N E L S T L G H  
E C L T F L T Q T F E D T P G I L Q M R Q G A E S Q Q D A A T L R I N A H  
N F E Q E L L H L F V D D T Q Q H L A N L K A A I S D Q Q N F D I A T R E A H  
G L L N K V I D I Y L K E A P N M L G R M E Q A L R Q D R H L S T V Y R L A H  
S L L K E L A G L F L D E A P Q R M A E I R Q A I T Q R D A T T L Q R E A H  
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R F S T A L V A G F F E Q A E A T F T S M D E A L V K E D L P Q L S S L G H  
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90 100 110 120

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

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

T I K G A A A N V G A E A L R E A A W E M E Q A G R R G D G E A L S S W L P E V |  
S L K G A A G N I G A S A V A D L C E Q L E D E A R A G A L S P D P R T L D R L |  
K L K S S A R S I G A L L Q L G S S C A Q M E Q A G K A G D M T R L N E L L P S F |  
Y L R K G S A A A L G L E K I S S S Q C E R I Q N Y G R K N N F D |  
A L R S P S G N L G A T N L Y Y L C K E M E T I A R E G S L E E A S E R I L L G I |  
A L K G A G L N L G A H R F A E V C R E L E S R G R E G A I A G L E D R L E Q L |  
D I K G S S S Y I G C E A F V R Y V S G K L E A Y C K N D E I K A E S F Y P E L |  
S F K G S A G N L A A Q D L A G L C L K A E N M G Q G K D L T A A T E L I A E I |  
F L K G S S A T L G F N K I R D S C C Q V V Q Q Y G H K L T V D S K I A E A L Q A A |  
T L K G S S A T L G A S I S L E L C K L A E A K A R A E D L S Q T V E L V N Q V |  
H I K G A S A H V G A V A M F A I A A E I E T L I K Q K S T S P S L P L L S Q L |  
S L K S S A N L G A G P L F S E A R R K M E G A K T L S P E Q R E L L M A S I |  
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UniRef90_A1F9Y7			N A L P S S P P A E E A I I D W P V A L R	Q S A N K E	
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UniRef90_H0T181	E	D	A	A	E	V	L	R	T	F	L	S	D	T	S	G	K	F	A	G	L	E	G	K	I	G	N	P	A	E	M	T	R	E	A	H		
UniRef90_A0A024U1U1	D	L	L	K	L	L	E	M	Y	D	G	L	D	A	S	V	H	K	L	E	K	A	Y	F	N	Q	D	V	P	A	V	R	R	E	S	H		
UniRef90_A0A023CAV7	R	L	L	E	L	L	S	S	R	R	D	R	Q	E	L	L	A	L	M	D	A	Q	A	S	R	Q	D	V	I	E	Q	A	H					
UniRef90_W1RPX8	D	L	F	K	S	V	V	E	S	F	V	I	E	S	N	D	L	L	E	K	I	Q	Q	G	V	K	E	R	D	P	V	R	T	R	E	Y	I	H
UniRef90_A0A030WVM5	E	L	I	V	Q	V	L	R	R	F	V	P	D	M	Q	D	L	F	A	Q	L	E	R	Q	L	G	E	G	D	V	Q	G	S	A	A	T	L	H
UniRef90_UPI00037DFB35	D	F	Y	I	K	I	L	K	E	F	S	R	N	H	Y	D	S	A	D	R	L	Q	E	A	L	V	H	N	Q	P	D	A	A	R	I	L	A	H





