

A B C D E F G H I J  
K L M N O P Q R S T  
U V W X Y Z

a b c d e f g h i j k l m  
n o p q r s t u v w x y z

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18 pt / 21pt (Target)

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HHBHBOBOO	nnngnogoo	nn:n:o:oo
HHCHCOCOO	nnhnhohoo	nn;n;o;oo
HHDHDODOO	nninioioo	nn@n@o@oo
HHEHEOEEOO	nnjnjojoo	nn%n%o%oo
HHFHFOFOO	nnknkokoo	nn(n(o(oo
HHGHGOGOO	nnlnlolo	nn)n)o)oo
HHHHHOHOO	nnmnmomoo	nn{n{o{oo
HHIHIOIOO	nnnnnonoo	nn}n}o}oo
HHJHJOJOO	nnonoooo	nn+n+o+oo
HHKHKOKOO	nnpnpopoo	nn-n-o-oo
HHLHLOLOO	nnqnqoqoo	nn_n_o_oo
HHMHMOMOO	nnrnroroo	nn/n/o/oo
HHNHNONOO	nnsnsosoo	nn\n\o\oo
HHOHOOOOO	nntntotoo	nn<n<o<oo
HHPHPOPOO	nnunuouoo	nn>n>o>oo
HHQHQQOOO	nnvnvovoo	110100000
HHRHROROO	nnwnwowoo	111110100
HHSHSOSOO	nnxnxoxoo	112120200
HHTHTOTOO	nnynyoyoo	113130300
HHUHUOUOO	nnznzozoo	114140400
HHVHVVOVOO	nn.n.o.oo	115150500
HHWHWOWOO	nn,n,o,oo	117170700
HHXHXOXOO	nn!n!o!oo	116160600
HHYHYOYOO	nn?n?o?oo	118180800
HHZHZOZOO	nn&n&o&oo	119190900
nnanaoao	nn“n“o“oo	11\$1\$o\$o
nnbnboboo	nn”n”o”oo	
nnncncocoo	nn‘n‘o‘oo	
nnndndodoo	nn’n’o’oo	
nneneoeoo	nn#n#o#oo	

18 pt / 21pt Uppercase

AARDVARK ABLUTION ACRIMONIOUS ADVENTURES  
AEOLIAN AFRICA AGAMEMNON AHOY AILERON AJAX  
AKIMBO ALTRUISM AMERICA ANECDOTE AORTA  
APTITUDE AQUARIUM ARCADE ASPARTAME ATTRITION  
AURELIUS AVUNCULAR AWNING AXMINSTER AYERS  
AZURE BANISHMENT BENIGHTED BHAGAVAD BIBLICAL  
BJORN BLANCMANGE BOLTON BRUSQUE BURNISH  
BWANA BYZANTIUM CABBALA CETACEAN CHARLEMAGNE  
CICERO CLAMOROUS CNIDARIAN CONIFER CRUSTACEAN  
CTENOID CULLED CYNOSURE CZARINA DALMATIAN DELPHI  
DHURRIE DINNER DJINN DOCUMENT DRILL DUNLEARY  
DVORAK DWINDLE DYNAMO EAMES EBULLIENT ECHO  
EDIFY EELS EFTSOONS EGRESS EHRlich EINDHOVEN  
EJECT EKISTICS ELZEVIR EMINENCE ENNOBLE EOCENE  
EPHEMERAL EQUATOR ERSTWHILE ESTIENNE ETIQUETTE  
EUCALYPTUS EVERYMAN EWEN EXETER EYELET EZEKIEL  
FANFARE FEROCIOUS FFESTINI OG FINICKY FJORD  
FLANDERS FORESTRY FRILLS FURNITURE FYLFOT  
GARRULOUS GENEROUS GHASTLY GIMLET GLORIOUS  
GNOMON GOLFER GRIZZLED GUMPTION GWENDOLYN  
GYMKHANA HARROW HEIFER HINDEMITH HORACE HSI  
HUBRIS HYBRID IAMBIC IBARRA ICHTHYOLOGY IDENTITY  
IEVGENY IFRIT IGNITE IHRE IKON ILIAD IMMINENT  
INNOVATION IOLANTHE IPANEMA IRASCIBLE ISLAND  
ITALIC IVORY IWIS IXTAPA IYAR IZZARD JANACEK JENSON  
JITTER JOINERY JR. JUNGIAN KAISER KENILWORTH KHAKI  
KINDRED KLONDIKE KNOWLEDGE KOHLRABI KRAKEN  
KUDZU KVETCH KWACHA KYRIE LABRADOR LENT LHASA  
LINIMENT LLAMA LONGBOAT LUDDITE LYCEUM MANDARIN  
MBANDAKA MCINTYRE MDINA MENDACIOUS MFG. MG  
MILLINERY Mlle. MME. MNEMONIC MORIBUND MR. MS.  
MTN. MUNITIONS MYRA NARRAGANSETT NEFARIOUS

NGUYEN NILE NKOSO NNENNA NONSENSE NR. NUNNERY  
NYACK OARSMAN OBLATE OCULAR ODESSA OEDIPUS OFTEN  
OGRE OHMS OILERS OKRA OLFACTORY OMINOUS ONEROUS  
OOGAMOUS OPINE ORNATE OSSIFIED OTHELLO OUBLIETTE  
OVENS OWLISH OXEN OYSTER OZYMANDIAS PARISIAN  
PB PD. PENROSE PFENNIG PG. PHARMACY PIROUETTE  
PLEISTOCENE PNEUMATIC PORRIDGE PP. PRINCIPLE  
PSALTERY PTARMIGAN PUNDIT PYRRHIC QAID QED QIBRIS  
QOM QUILL RANSOM RB. RD. RENFIELD RHEUMATIC  
RINGLET RM. RONSARD RP. RTE. RUNCIBLE RWANDA  
RYE SALACIOUS SBEITLA SCHERZO SERPENTINE SFORZA  
SHACKLES SINFUL SJOERD SKULL SLALOM SMELTING SNIPE  
SORBONNE SPARTAN SQUIRE SRI STULTIFIED SUMMONER  
SVELTE SWARTHY SYKES SZENTENDRE TARRAGON TBLISI  
TCHERNY TENNYSON THAUMATURGE TINCTURE TLALOC  
TOREADOR TREACHEROUS TSUNAMI TURKEY TWINE  
TYROLEAN TZARA UBIQUITOUS UCELLO UDDER UFOLOGY  
UGRIC UHLAN UITLANDER UKULELE ULSTER UMBER  
UNGUENT UOMO UPLIFT URSINE USURIOUS UTRECHT  
UVULA UXORIOUS UZBEK VANISHED VD. VENOMOUS  
VINDICATE VORACIOUS VRILLIER VS. VT. VULNERABLE  
VYING WASHINGTON WENDELL WHARF WINDOW WM.  
WORTH WRUNG WT. WUNDERMAN WYES XANTHAN XENON  
XIAO XMAS XRAY XUXA XYLEM YARROW YBARRA YCAIR YDS.  
YELLOWSTONE YGGDRASIL YIN YLANG YOURS YPSILANTI  
YQUEM YRS. YS. YTTERBIUM YUNNAN YVONNE ZANZIBAR  
ZERO ZHORA ZINFANDEL ZONE ZUNI ZWIEBACK ZYGOTE

18 pt / 21pt Titlecase

Aardvark Ablution Acrimonious Adventures Aeolian Africa  
Agamemnon Ahoy Aileron Ajax Akimbo Altruism America  
Anecdote Aorta Aptitude Aquarium Arcade Aspartame Attrition  
Aurelius Avuncular Awning Axminster Ayers Azure Banishment  
Benighted Bhagavad Biblical Bjorn Blancmange Bolton Brusque  
Burnish Bwana Byzantium Cabbala Cetacean Charlemagne Cicero  
Clamorous Cnidarian Conifer Crustacean Ctenoid Culled Cynosure  
Czarina Dalmatian Delphi Dhurrie Dinner Djinn Document Drill  
Dunleary Dvorak Dwindle Dynamo Eames Ebullient Echo Edify  
Eels Eftsoons Egress Ehrlich Eindhoven Eject Ekistics Elzevir  
Eminence Ennoble Eocene Ephemeral Equator Erstwhile Estienne  
Etiquette Eucalyptus Everyman Ewen Exeter Eyelet Ezekiel  
Fanfare Ferocious Ffestiniog Finicky Fjord Flanders Forestry Frills  
Furniture Fyrfot Garrulous Generous Ghastly Gimlet Glorious  
Gnomon Golfer Grizzled Gumption Gwendolyn Gymkhana Harrow  
Heifer Hindemith Horace Hsi Hubris Hybrid Iambic Ibarra  
Ichthyology Identity Ievgeny Ifrit Ignite Ihre Ikon Iliad Imminent  
Innovation Iolanthe Ipanema Irascible Island Italic Ivory Iwis  
Ixtapa Iyar Izzard Janacek Jenson Jitter Joinery Jr. Jungian Kaiser  
Kenilworth Khaki Kindred Klondike Knowledge Kohlrabi Kraken  
Kudzu Kvetch Kwacha Kyrie Labrador Lent Lhasa Liniment Llama  
Longboat Luddite Lyceum Mandarin Mbandaka McIntyre Mdina  
Mendacious Mfg. Mg Millinery Mlle. Mme. Mnemonic Moribund  
Mr. Ms. Mtn. Munitions Myra Narragansett Nefarious Nguyen  
Nile Nkoso Nnenna Nonsense Nr. Nunnery Nyack Oarsman Oblate  
Ocular Odessa Oedipus Often Ogre Ohms Oilers Okra Olfactory  
Ominous Onerous Oogamous Opine Ornate Ossified Othello  
Oubliette Ovens Owlsh Oxen Oyster Ozymandias Parisian Pb Pd.  
Penrose Pfennig Pg. Pharmacy Pirouette Pleistocene Pneumatic  
Porridge Pp. Principle Psaltery Ptarmigan Pundit Pyrrhic Qaid Qed  
Qibris Qom Quill Ransom Rb. Rd. Renfield Rheumatic Ringlet Rm.  
Ronsard Rp. Rte. Runcible Rwanda Rye Salacious Sbeitla Scherzo

Serpentine Sforza Shackles Sinful Sjoerd Skull Slalom Smelting  
Snipe Sorbonne Spartan Squire Sri Stultified Summoner Svelte  
Swarthy Sykes Szentendre Tarragon Tblisi Tcherny Tennyson  
Thaumaturge Tincture Tlaloc Toreador Treacherous Tsunami  
Turkey Twine Tyrolean Tzara Ubiquitous Ucello Udder Ufology  
Ugric Uhlan Uitlander Ukulele Ulster Umber Unguent Uomo  
Uplift Ursine Usurious Utrecht Uvula Uxorious Uzbek Vanished  
Vd. Venomous Vindicate Voracious Vrillier Vs. Vt. Vulnerable  
Vying Washington Wendell Wharf Window Wm. Worth Wrung Wt.  
Wunderman Wyes Xanthan Xenon Xiao Xmas Xray Xuxa Xylem  
Yarrow Ybarra Ycair Yds. Yellowstone Yggdrasil Yin Ylang Yours  
Ypsilanti Yquem Yrs. Ys. Ytterbium Yunnan Yvonne Zanzibar Zero  
Zhora Zinfandel Zone Zuni Zwieback Zygote



18 pt / 21pt lowercase

aardvark ablution acrimonious adventures aeolian africa  
agamemnon ahoy aileron ajax akimbo altruism america anecdote  
aorta aptitude aquarium arcade aspartame attrition aurelius  
avuncular awning axminster ayers azure banishment benighted  
bhagavad biblical bjorn blancmange bolton brusque burnish  
bwana byzantium cabbala cetacean charlemagne cicero clamorous  
cnidarian conifer crustacean ctenoid culled cynosure czarina  
dalmatian delphi dhurrie dinner djinn document drill dunleary  
dvorak dwindle dynamo eames ebullient echo edify eels eftsoons  
egress ehrlich eindhoven eject ekistics elzevir eminence ennoble  
eocene ephemeral equator erstwhile estienne etiquette eucalyptus  
everyman ewen exeter eyelet ezekiel fanfare ferocious ffestiniog  
finicky fjord flanders forestry frills furniture fylfot garrulous  
generous ghastly gimlet glorious gnomon golfer grizzled gumption  
gwendolyn gymkhana harrow heifer hindemith horace hsi hubris  
hybrid iambic ibarra ichthyology identity ievgeny ifrit ignite ihre  
ikon iliad imminent innovation iolanthe ipanema irascible island  
italic ivory iwis ixtapa iyar izzard janacek jenson jitter joinery  
jr. jungian kaiser kenilworth khaki kindred klondike knowledge  
kohlrabi kraken kudzu kvetch kwacha kyrie labrador lent lhasa  
liniment llama longboat luddite lyceum mandarin mbandaka  
mcintyre mdina mendacious mfg. mg millinery mlle. mme.  
mnemonic moribund mr. ms. mtn. munitions myra narragansett  
nefarious nguyen Nile nkoso nnenna nonsense nr. nunnery nyack  
oarsman oblate ocular odessa oedipus often ogre ohms oilers okra  
olfactory ominous onerous oogamous opine ornate ossified othello  
oubliette ovens owlsh oxen oyster ozymandias parisian pb pd.  
penrose pfennig pg. pharmacy pirouette pleistocene pneumatic  
porridge pp. principle psaltery ptarmigan pundit pyrrhic qaid  
qed qibris qom quill ransom rb. rd. renfield rheumatic ringlet  
rm. ronsard rp. rte. runcible rwanada rye salacious sbeitla scherzo  
serpentine sforza shackles sinful sjoerd skull slalom smelting snipe

sorbonne spartan squire sri stultified summoner svelte swarthy  
sykes szentendre tarragon tblisi tcherny tennyson thaumaturge  
tincture tlaloc toreador treacherous tsunami turkey twine tyrolean  
tzara ubiquitous ucello udder ufology ugric uhlan uitlander ukulele  
ulster umber unguent uomo uplift ursine usurious utrecht uvula  
uxorious uzbek vanished vd. venomous vindicate voracious vrillier  
vs. vt. vulnerable vying washington wendell wharf window wm.  
worth wrung wt. wunderman wyes xanthan xenon xiao xmas xray  
xuxa xylem yarrow ybarra ycair yds. yellowstone yggdrasil yin ylang  
yours ypsilanti yquem yrs. ys. ytterbium yunnan yvonne zanzibar  
zero zhora zinfandel zone zuni zwieback zygote



# THIS ROBOT'S JOURNEY TO AN ICY ALIEN MOON STARTS BENEATH ANTARCTICA

NASA SCIENTISTS COMPLETED FIELD TESTS IN NOVEMBER OF A FLOATING ROVER THEY HOPE WILL ONE DAY TRAVEL TO EUROPA, THE FROZEN OCEAN MOON OF JUPITER.

A prototype of NASA's Jet Propulsion Laboratory's Buoyant Rover for Under-Ice Exploration, a technology that could one day explore oceans under the ice layers of planetary bodies, being tested in a lake near Barrow, Alaska.

– By David W. Brown, Jan. 5, 2020, 5:00 a.m. ET

CASEY STATION, Antarctica — Near a nice, big hole in the ice and beneath the stone gray, midday Antarctic summer skies, six Adélie penguins stared at six men toiling with tools. The chasm in the ice might have been an inviting entry to the krill-rich waters below. None of the members of the tuxedoed recon party dove into the hole, a square about six feet across. The risk of leopard seals was just too great.

But had they leapt in, the penguins would have discovered not a seal, but a robot.

In November, scientists and engineers from NASA's Jet Propulsion Laboratory successfully field tested Bruie — the "Buoyant Rover for Under-Ice Exploration" — beneath the ice of eastern Antarctica. The remotely operated rover was built to crawl along the underside of sea ice and ice shelves. These tests on Earth have a long-term goal of one day seeking evidence of life beneath the thick frozen shell covering Jupiter's ocean moon of Europa. Beneath that ice is three times more liquid water than can be found in all the oceans on Earth.

It will be years before a spacecraft from Earth lands on Europa, which was most closely studied by NASA's Galileo mission in the 1990s. The next robotic probe to visit that world will be Europa Clipper, scheduled to launch no sooner than 2025. When it arrives some years later, that spacecraft will orbit Jupiter and encounter Europa dozens of times at different angles to thoroughly scan and map the moon, considered one of the best candidates in our solar system to be inhabited by some form of extraterrestrial life. Any future for a lander visiting the Jovian moon is uncertain. But that hasn't stopped NASA's engineers and scientists from developing technologies to aid its mission.

"Getting a vehicle like the buoyant rover and other submersibles in the ocean of Europa is the long-term vision for what we hope to one day accomplish," said Kevin P. Hand, the project's science lead from the Jet Propulsion Laboratory. "It's going to come after Clipper and a lander on the surface. These precursor missions would set the stage for getting through the ice and reaching the ocean."