



Transmissions Specialists: Main Problem-Solving Chart

Using the message you decoded on the last Task Card, circle either “near”, “not near” or “maybe” for the correct day and planet.

	Jupiter	Saturn	Uranus	Neptune	Pluto
Monday	Near <u>Not Near</u> Maybe	Near <u>Not Near</u> Maybe	Near <u>Not Near</u> <u>Maybe</u>	<u>Near</u> <u>Not Near</u> <u>Maybe</u>	Near <u>Not Near</u> Maybe
Tuesday	<u>Near</u> <u>Not Near</u> Maybe	<u>Near</u> <u>Not Near</u> Maybe	<u>Near</u> <u>Not Near</u> Maybe	<u>Near</u> <u>Not Near</u> Maybe	<u>Near</u> <u>Not Near</u> Maybe
Wednesday	<u>Near</u> <u>Not Near</u> Maybe	<u>Near</u> <u>Not Near</u> Maybe	<u>Near</u> <u>Not Near</u> Maybe	<u>Near</u> <u>Not Near</u> Maybe	<u>Near</u> <u>Not Near</u> Maybe
Thursday	Near Not Near Maybe	<u>Near</u> <u>Not Near</u> Maybe	<u>Near</u> <u>Not Near</u> Maybe	<u>Near</u> <u>Not Near</u> Maybe	Near Not Near Maybe
Friday	<u>Near</u> <u>Not Near</u> Maybe	Near Not Near Maybe	Near Not Near Maybe	Near Not Near Maybe	<u>Near</u> <u>Not Near</u> Maybe

Reading 1 _____
 Reading 2
 Reading 3 - - - - -

Legend	
Planet	Marker Color
Jupiter	
Saturn	
Uranus	
Neptune	
Pluto	



Transmissions Specialists: Main Problem-Solving Chart

Answers

Reading 1	Jupiter Team	On Monday	Not Near	Jupiter or Saturn
	Saturn Team	On Monday	Near	Neptune
		On Tuesday	Near	Pluto
	Uranus Team	On Monday	Not Near	Uranus
	Neptune Team	On Monday	Maybe	Uranus or Neptune
	Pluto Team	On Monday	Not Near	Pluto

Reading 2	Jupiter Team	On Wednesday	Near	Uranus
	Saturn Team	On Tuesday	Not Near	Uranus or Saturn
	Uranus Team	On Tuesday	Not Near	Uranus
		On Thursday	Not Near	Uranus
	Neptune Team	On Tuesday	Not Near	Neptune
		On Wednesday	Not Near	Neptune
	Pluto Team	On Tuesday	Near	Pluto

Reading 3	Jupiter Team	On Tuesday	Not Near	Jupiter
		On Wednesday	Not Near	Jupiter
	Saturn Team	On Wednesday	Not Near	Saturn
		On Thursday	Not Near	Saturn
	Uranus Team	On Thursday	Not Near	Saturn, Uranus, Neptune
	Neptune Team	On Wednesday	Not Near	Pluto
		On Friday	Not Near	Pluto
	Pluto Team	On Friday	Not Near	Jupiter



Cargo Specialists: Main Cargo Board

Using the calculations from your Task Card, complete the rows below for your planet.

DATA #1	JUPITER	SATURN	URANUS	NEPTUNE	PLUTO
Number of days for the trip out	1	2	4	6	7
Number of food packs	18	36	72	108	126
Number of crates of food needed	9	18	36	54	63
DATA #2					
Number of water bottles	24	48	96	144	168
Number of crates of water needed	5	10	20	29	34
DATA #3					
Number of oxygen tanks	30	60	120	180	210
Number of crates of oxygen needed	8	15	30	45	53

Legend	
Planet	Marker Color
Jupiter	
Saturn	
Uranus	
Neptune	
Pluto	



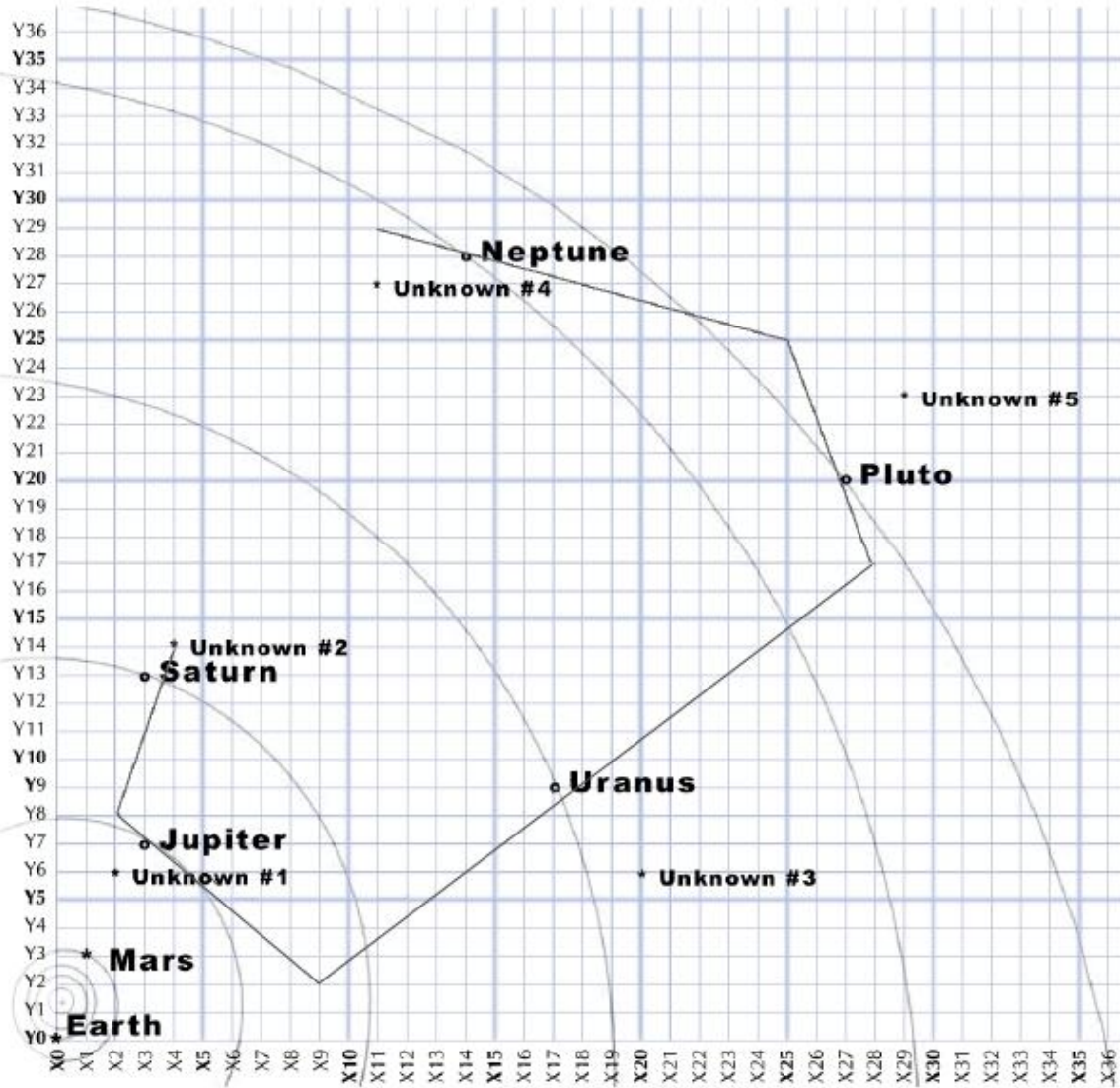
Cargo Specialists: Task Card Answers

Handout #1/ Task Card #		Jupiter	Saturn	Uranus	Neptune	Pluto
2	Total # Days to get from Mars to your planet	1	2	4	6	7
4	Total # Food Packs needed for one Astronaut	3	6	12	18	21
	Total # Food Packs for All Astronauts	6	12	24	36	42
5	Days to Return to Mars from our planet	1	2	4	6	7
7	Total # Food packs for ALL Astronauts on Return Trip	12	24	48	72	84
8	Summarize: Food Packs for the Trip Out	6	12	24	36	42
	Summarize: Food Packs for Return Trip	12	24	48	72	84
	Summarize: Total Number of Food Packs	18	36	72	108	126
9	Number of Crates Needed for Food Packs	9	18	36	54	63
10	Main Board Report: Number of Days for Trip Out	1	2	4	6	7
	Main Board Report: Number of Days for Return Trip	1	2	4	6	7
	Main Board Report: Number of Crates Needed for Food	9	18	36	54	63
Handout #2/ Task Card #						
2	Total # Water Bottles for One Astronaut on the Trip Out	4	8	16	24	28
3	Total # Water Bottles for ALL Astronauts for Trip Out	8	16	32	48	56
4	Total # Water Bottles for ALL Astronauts for Return Trip	16	32	64	96	112
5	Total # Water Bottles for Trip out and Return Trip Back	24	48	96	144	168
	Total # Crates Needed for Water	5	10	20	29	34
6	Main Board Report: Number of Water Bottles	24	48	96	144	168
	Main Board Report: Number of Crates Needed for Water	5	10	20	29	34
Handout #3/ Task Card #						
2	Number of Oxygen Tanks Needed for one Astronaut	5	10	20	30	35
3	Total # Oxygen Tanks for ALL Astronauts for Trip Out	10	20	40	60	70
4	Total # Oxygen Tanks for ALL Astronauts for Return Trip	20	40	80	120	140
5	Total # of Oxygen Tanks needed for Trip Out and Back	30	60	120	180	210
	Total Number of Crates Needed for Oxygen Tanks	8	15	30	45	53
6	Main Board Report: Number of Oxygen Tanks	30	60	120	180	210
	Main Board Report: Number of Crates Needed for Oxygen	8	15	30	45	53



Navigation Specialists: Main Solar System Map

Using coordinates, plot and label items near your team's planet:



Legend	
Planet	Marker Color
Jupiter	
Saturn	
Uranus	
Neptune	
Pluto	



Navigation Specialists

Reading #1

Location Coordinates	
Jupiter	(X3, Y7)
Saturn	(X3, Y13)
Uranus	(X17, Y9)
Neptune	(X14, Y28)
Pluto	(X27, Y20)

Reading #2

Object	Discovered Near:	Location Coordinate
Unknown #1	Jupiter	(X2, Y6)
Unknown #2	Saturn	(X4, Y14)
Unknown #3	Uranus	(X20, Y6)
Unknown #4	Neptune	(X11, Y27)
Unknown #5	Pluto	(X29, Y23)

Reading #3

Ship Spotted Near:	Location Coordinate #1	Location Coordinate #2
Jupiter	(X9, Y2)	(X2, Y8)
Saturn	(X2, Y8)	(X4, Y14)
Uranus	(X28, Y17)	(X9, Y2)
Neptune	(X11, Y29)	(X25, Y25)
Pluto	(X25, Y25)	(X28, Y17)