

Transmissions Specialist

Handout #3



Planet Team:

(Circle one)

Jupiter

Saturn

Uranus

Neptune

Pluto

Transmissions Specialist

Handout #3



Planet Team:

(Circle one)

Jupiter

Saturn

Uranus

Neptune

Pluto

Message #3

The next message you receive can be decoded using a little math.

For example, if the message is : “The ship was near Pluto”

It might be encoded as, “(10 + 2) was near (8 + 1)”

To Solve:

1) Write the answers above the equations: $\begin{array}{cc} 12 & 9 \\ (10 + 2) & \text{was near } (8 + 1) \end{array}$

2) Use the decoding key on the next Task Card to figure out that 12 equals “the ship” and 9 equals “Pluto”

3) Write the words near the answers: $\begin{array}{cc} 12 = \text{the ship} & 9 = \text{Pluto} \\ (10 + 2) & \text{was near } (8 + 1) \end{array}$

And you get, “The ship was near Pluto” as your message.

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It might be encoded as, “(10 + 2) was near (8 + 1)”

To Solve:

1) Write the answers above the equations: $\begin{array}{cc} 12 & 9 \\ (10 + 2) & \text{was near } (8 + 1) \end{array}$

2) Use the decoding key on the next Task Card to figure out that 12 equals “the ship” and 9 equals “Pluto”

3) Write the words near the answers: $\begin{array}{cc} 12 = \text{the ship} & 9 = \text{Pluto} \\ (10 + 2) & \text{was near } (8 + 1) \end{array}$

And you get, “The ship was near Pluto” as your message.

Decoding the Messages

Handout #3 / Task Card #3

First, solve the math problems. Write the message with the math answers. _____

Use this to decode message #3:

1	=	Tuesday
2	=	Wednesday
3	=	Thursday
4	=	Friday
5	=	Jupiter
6	=	Saturn
7	=	Uranus
8	=	Neptune
9	=	Pluto
10	=	The Sun

11	=	Rhea
12	=	The Ship
13	=	Planet
14	=	Big Red Spot
15	=	Rings
16	=	Smallest
17	=	Blue
18	=	Fifth
19	=	Near
20	=	Not Near

Next, decode the message, by replacing the answers with words. _____

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Next, decode the message, by replacing the answers with words. _____

Decoding the Message

Handout #3 / Task Card #4

Look at the message you just decoded. Does it include a name of a planet? If you do not have a planet name in your message, you must solve the clues in your decoded sentence. For example, if your decoded message says *"The ship was near the planet with the moon Phoebe"*, you must rewrite your message to read *"The ship was near Saturn"*. Use the table below to solve your clues. If you already have the name of a planet in your decoded sentence, just copy your sentence onto this page.

Planet	Jupiter	Saturn	Uranus	Neptune	Pluto
Order from the Sun	Fifth	Sixth	Seventh	Eighth	Ninth
Appearance	Big Red Spot	Rings	Blue	Blue	Rocky
Size	Largest	2nd Largest	3rd Largest	4th Largest	Smallest
Names of major moons	Io, Europa, Ganymede, <u>Callisto</u>	Rhea, Titan, Iapetus, Phoebe	Oberon, <u>Titania</u> , <u>Umbriel</u> , Ariel	Triton, Nereid, Proteus	Charon, Hydra, Nix

Write your final decoded message. It must contain a planet name and a day of the week!

Decoding the Message

Handout #3 / Task Card #4

Look at the message you just decoded. Does it include a name of a planet? If you do not have a planet name in your message, you must solve the clues in your decoded sentence. For example, if your decoded message says *"The ship was near the planet with the moon Phoebe"*, you must rewrite your message to read *"The ship was near Saturn"*. Use the table below to solve your clues. If you already have the name of a planet in your decoded sentence, just copy your sentence onto this page.

Planet	Jupiter	Saturn	Uranus	Neptune	Pluto
Order from the Sun	Fifth	Sixth	Seventh	Eighth	Ninth
Appearance	Big Red Spot	Rings	Blue	Blue	Rocky
Size	Largest	2nd Largest	3rd Largest	4th Largest	Smallest
Names of major moons	Io, Europa, Ganymede, <u>Callisto</u>	Rhea, Titan, Iapetus, Phoebe	Oberon, <u>Titania</u> , <u>Umbriel</u> , Ariel	Triton, Nereid, Proteus	Charon, Hydra, Nix

Write your final decoded message. It must contain a planet name and a day of the week!

Transmission Report

Handout #3 / Task Card #5

Circle your planet name: **Jupiter** **Saturn** **Uranus** **Neptune** **Pluto**

Use your final decoded message to fill out this page. If the spacecraft is near more than one planet, circle "maybe". Each line must have a day of the week, a circle and a planet name(s). You might not use both lines.

(Circle one)

On _____ the ship was (Day of the week)	Near Maybe Near Not Near	_____ (Planet names)
On _____ the ship was (Day of the week)	Near Maybe Near Not Near	_____ (Planet names)



Take this booklet to your Communication officer. After the Commander approves your report, ***circle your all of your answers on your class chart!***

Transmission Report

Handout #3 / Task Card #5

Circle your planet name: **Jupiter** **Saturn** **Uranus** **Neptune** **Pluto**

Use your final decoded message to fill out this page. If the spacecraft is near more than one planet, circle "maybe". Each line must have a day of the week, a circle and a planet name(s). You might not use both lines.

(Circle one)

On _____ the ship was (Day of the week)	Near Maybe Near Not Near	_____ (Planet names)
On _____ the ship was (Day of the week)	Near Maybe Near Not Near	_____ (Planet names)



Take this booklet to your Communication officer. After the Commander approves your report, ***circle your all of your answers on your class chart!***