Aeronautics Research Mission Directorate

Mystery Picture Graphing Activity 2

On the graph found on the third page:

- Plot and connect the points found in groups 1-3.
- Follow the directions for the points found in groups 4-11.

Then, read through the information on the fourth page to determine which aircraft is pictured.

Plot and connect the points in each of the following groups:

Group 1:

(0, -3)
(7, -1)
(18, -4)
(20, -5)
(21, -8)
(21, -4)
(22, -4)
(24, -3)
(22, -3)
(23, 0)
(20, -3)
(9, 0)
(12, 2)
(17, 1)

(19, 1)
(13, 3)
(15, 9)
(13, 9)
(9, 4)
(6, 4)
(7, 3)
(3, 3)
(-2, 4)
(-6, 4)
(-16, 6)
(-15, 7)
(-19, 7)
(-18, 9)

(-20, 7)
(-22, 7)
(-20, 6)
(-19, 4)
(-19, 6)
(-17, 6)
(-8, 3)
(-12, 2)
(-20, -4)
(-20, -5)
(-11, -5)
(0, -3)

Group 2:

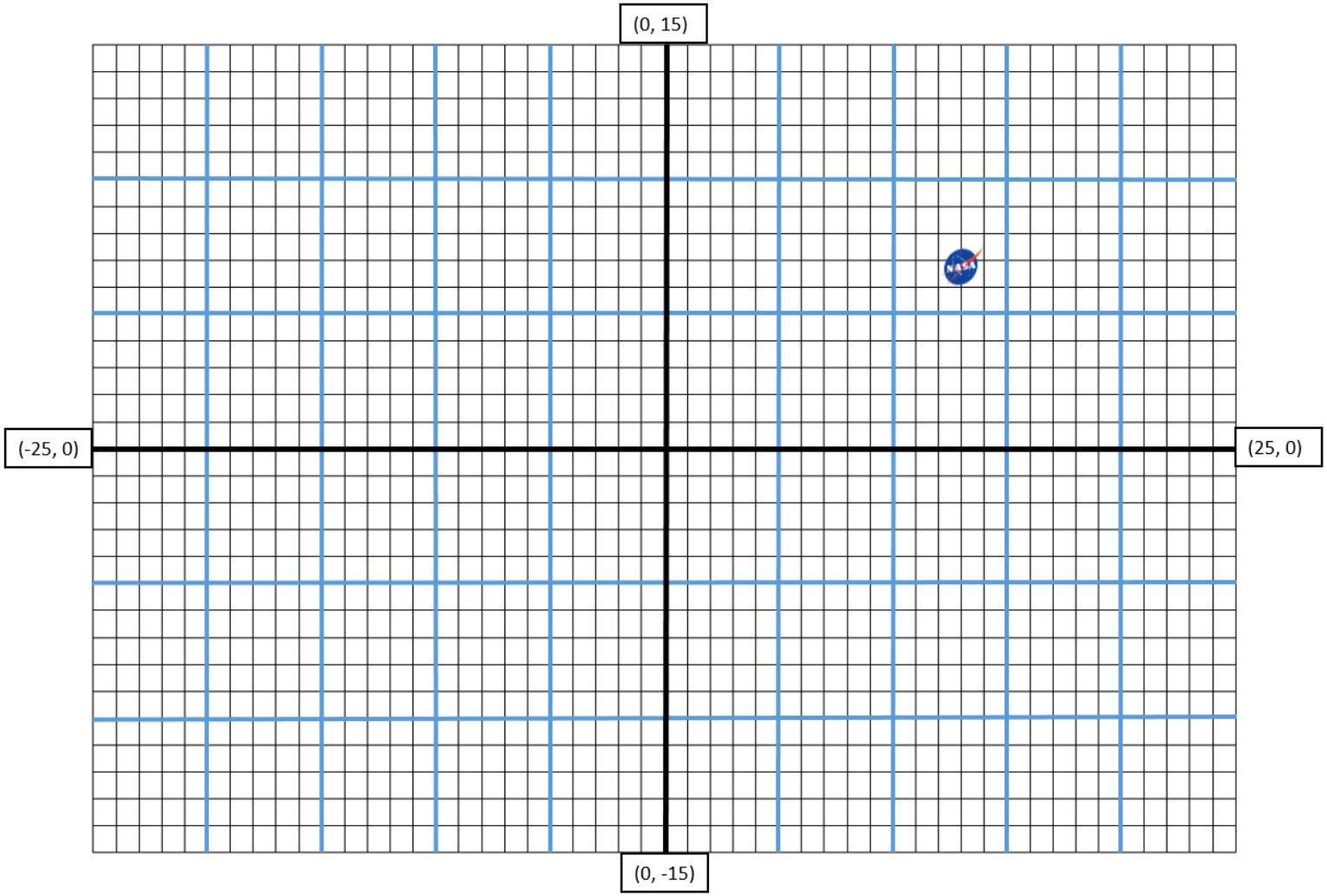
(-12, 2)
(-15, 0)
(-9, -1)
(-7, 2)
(-12, 2)

Group 3:

(-6, 1)
(-6, -1)
(-8, -1)
(-6, 1)

Follow the directions in each of the following groups:

Group 4:	**Group 6:**	**Group 8:**	**Group 10:**
Draw a line from	Draw a line from	Draw a line from	Draw a line from
(-17, 6)	(-11, 4)	(7, -1)	(15, -3)
to **each** of the	to **each** of the	to **each** of the	to **each** of the
following points:	following points:	following points:	following points:
(-17, 7)	(-11, 5)	(7, 0)	(15, -2)
(-18, 6)	(-12, 4)	(6, -1)	(14, -3)
(-16, 6)	(-10, 4)	(8, -1)	(16, -3)
(-18, 5)	(-12, 3)	(6, -2)	(14, -4)
(-16, 5)	(-10, 3)	(8, -2)	(16, -4)
Group 5:	**Group 7:**	**Group 9:**	**Group 11:**
Draw a line from	Draw a line from	Draw a line from	Draw a line from
(-14, 5)	(-7, 3)	(11, -2)	(18, -4)
to **each** of the	to **each** of the	to **each** of the	to **each** of the
following points:	following points:	following points:	following points:
(-14, 6)	(-7, 4)	(11, -1)	(18, -3)
(-15, 5)	(-8, 3)	(10, -2)	(17, -4)
(-13, 5)	(-6, 3)	(12, -2)	(19, -4)
(-15, 4)	(-8, 2)	(10, -3)	(17, -5)
(-13, 4)	(-6, 2)	(12, -3)	(19, -5)


(0, 15)
(-25, 0)
(25, 0)
(0, -15)

NASA's Aeronautics Missions:

At any given time, NASA Aeronautics is working on different missions to help make flight safer, faster, quieter and more efficient. Some current projects include the following:

Electrified Aircraft Propulsion: The X-57 (Figure 1) is one of the first airplanes fully powered by electricity, meaning that it produces no harmful emissions when it flies. NASA is working with industry partners to use the technology from the X-57 to produce larger passenger-carrying airplanes that are partially or fully powered by electricity.

Figure 1. The X-57 is powered by electricity.

Low-boom Flight Demonstrator: For many years, planes have been able to fly faster than the speed of sound, or supersonically. Unfortunately, when planes fly this fast, they produce a very loud noise called a sonic boom. As a result, nonmilitary supersonic flight over land is not allowed currently. NASA's X-59 (Figure 2) airplane is designed to fly supersonically without creating a sonic boom. NASA will be flying the plane over different communities across the U.S. in an attempt to demonstrate that supersonic flight is possible without creating harmful noise pollution. If successful, the hope is that supersonic flight over land will become a reality.

Figure 2. The X-59 is designed to fly supersonically without creating a sonic boom.

Advanced Air Mobility: Soon, flying taxis, package-carrying drones and other similar aircraft will be common sights in the skies over towns. NASA is leading the way to develop a system for controlling these aircraft as they fly passengers and cargo over urban and rural areas. This system is known as Advanced Air Mobility (AAM).

Figure 3. Flying taxis and other aircraft will be controlled through a system known as AAM.

Answer: