

Performance Task Contents

● Performance Task 1	268
● Performance Task 2	273
● Performance Task 3	278

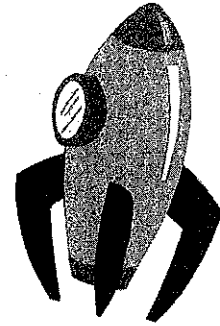
Performance Task 1

Summer Vacation: Year 2995

Name _____

- 1 Yolanda and her family are voyaging to the edge of the Milky Way for summer vacation. But she still has to do her summer math project! To start the assignment, Yolanda records the distance the spaceship traveled since breakfast.

7,837,927,457 miles



- A. Write the value of each 7. If Yolanda starts with the 7 in the ones place, how could she get numbers equal to the values of the other 7s?

- B. HANK, the family robot, printed some decimals for Yolanda.

Write each in standard form. Then order them from greatest to least.

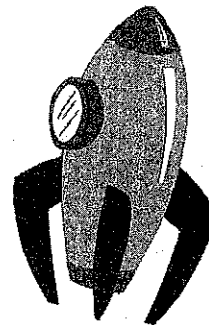
six hundred eighty-three thousandths

$$(7 \times \frac{1}{10}) + (8 \times \frac{1}{100})$$

$$(6 \times \frac{1}{10}) + (1 \times \frac{1}{100}) + (8 \times \frac{1}{1000})$$

seven hundred eight thousandths

- C. HANK gives Yolanda another task. He asks her to round each decimal in problem B above to the nearest tenth.

A Handy Helper

- 2** Yolanda's brother George also has to keep up with his summer math project. When George sits down with HANK, the robot prints some incomplete multiplication sentences.

- A.** Help George complete the multiplication sentences below. Then describe the pattern. Write the next multiplication sentence in the pattern.

$$30 \times 20 = \underline{\hspace{2cm}}$$

$$3 \underline{\hspace{2cm}} \times 20 = 6,000$$

$$3,000 \times 20 = \underline{\hspace{2cm}}$$

$$3 \underline{\hspace{2cm}} \times 20 = 600,000$$

Yolanda and George's home on Earth has a greenhouse with 68 tomato plants. Last week HANK told the greenhouse computer to give each tomato plant 284 mL of water. This week HANK told the greenhouse computer to give each tomato plant 307 mL of water.

- B.** How much water did the tomato plants get in all?

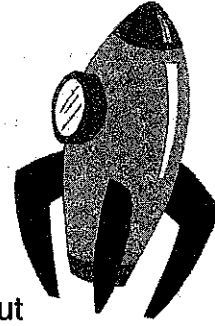
- C.** Next week each tomato plant will need 20 mL more than half the water it got this week. Write an expression for the direction HANK might give to the greenhouse computer.

Performance Task 1

Space Travel Nutrition

Name _____

- 3** A member of the space ship crew checks the supply of fruit snacks. He notices that there are 15,481 fruit snacks left in the holding bin of the ship. Unfortunately, he also sees that space mice have munched on 1,128 of the snacks. There are 47 people on the spaceship. Each person gets one fruit snack each day.



- A.** How long can the voyage continue before the space ship runs out of fruit snacks?

Here are some strategies you can use.

- Draw an array.
- Draw an area model.
- Multiply to divide.
- Break apart the dividend.

Twice a day, each of the 47 people on the spaceship takes a vitamin capsule. They also take a mineral capsule at breakfast, lunch, and dinner, however 12 people do not take these mineral capsules.

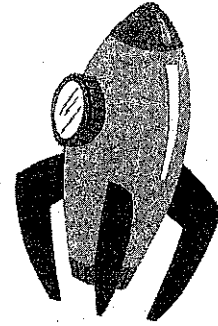
- B.** Write an expression for the total number of capsules taken each day. Evaluate your expression.

C Performance Task 1

Space Hobbies

Name _____

- 4 George is working on his miniature magnetic train. The rocket locomotive is $\frac{7}{8}$ inch long. George attaches a meteor car that is $\frac{2}{3}$ inch long. Then he attaches a Martian cattle car that is $\frac{5}{6}$ inch long.



- A. How long is the magnetic train now? Write your answer in simplest form.

Yolanda is making a model of a galaxy worm. The worm's head is $2\frac{1}{2}$ meters long. She decides that is too long, so she cuts $\frac{3}{4}$ meter off. Then Yolanda attaches the worm's tail, which is $3\frac{3}{5}$ meters long.

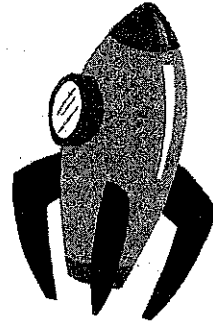
- B. How long is the galaxy worm? Write your answer in simplest form.

Performance Task 1

Outerspace Activity

Name _____

- 5 The fuel tank on Yolanda's space suit was $\frac{9}{10}$ full. She went on a space walk before lunch and used $\frac{3}{4}$ tank of fuel. At lunch, Yolanda's dad asks how much fuel she had left in her tank. Yolanda thinks a moment before replying, "The tank must be $\frac{3}{5}$ full now."



A. Is Yolanda's answer reasonable? Explain.

George's space scooter has $4\frac{1}{8}$ liters of fuel in its tank. He adds $2\frac{1}{2}$ liters of fuel and takes the scooter for a ride around the spaceship. During the ride, the scooter uses $1\frac{1}{4}$ liters of fuel.

B. How much fuel is left in the tank?