

Name \_\_\_\_\_

Math problem solving



# Germ Alert!

Germs are everywhere, and some can make you very sick if you are not careful. Solve each problem and learn more about germs.

**The handle of a faucet is a germ zone.**

1. On one square inch of a faucet handle, there are about 229,000 germs. If a faucet handle has an area of three square inches, how many germs are on the handle? \_\_\_\_\_ germs



Hands are germ magnets.

2. Jasper stops to get a drink at the water fountain and accidentally sneezes. In the next two minutes, Diego, Mia, and Jacob stop for a drink of water. Diego goes back to his class and plays a dice game with two classmates. Mia hands out papers to 24 classmates. Jacob plays basketball with six pals. How many people may be infected with germs from Jasper's sneeze? \_\_\_\_\_ people

**Germs live longer on stainless steel, plastic, and other hard surfaces.**

**One ounce of poop is about the weight of a paper clip.**

3. About 1,000,000,000 germs are in one ounce of poop. Lee just changed his little brother's diaper. He accidentally got two ounces of poop on his left hand and one-half ounce of poop on his right hand. How many poop germs does Lee have on his hands? \_\_\_\_\_ germs

4. One type of germ grows and divides every 20 minutes. If five of those germs are on your thumb and you do not wash your hands, how many germs could be on your thumb in two hours? \_\_\_\_\_ germs

**Germs grow and divide.**

germs	5						
minutes	0	20					120

**Germs can stay active for a few minutes or several hours.**

5. Lulu steps inside the elevator at work and coughs on the elevator buttons. Within the next hour, 30 more people press elevator buttons. One half of these people work alone. One half of these people work with three additional people. How many people at work could be infected with germs from Lulu's cough? \_\_\_\_\_ people

6. Principal Proton is fighting germs! After learning that each of his 275 students missed an average of two school days last quarter due to illness, he issued a hand washing challenge. The following quarter, 296 absences due to illness were reported. Explain how you know the hand washing campaign worked. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**The spreading of germs in schools causes millions of students to get sick each year.**



**Georgia-Pacific**  
Professional

# GERM ALERT!

(3.OA.D.8, 4.OA.A.3)

## ANSWER KEY

1. 687,000 germs
2. 35 people
3. 2,500,000,000 germs
4. 320 germs

germs	5	10	20	40	80	160	320
minutes	0	20	40	60	80	100	120

5. 75 people
6. There were 550 student absences during the first quarter and only 296 absences during the second quarter.