

Day 4 - Creating Equations with Distribution - Practice

Directions: Create an equation to represent each scenario.

1. Naomi is deciding which online photo sharing service she wants to subscribe to. One of her options, Photo World, charges an initial membership fee of \$35 for the first month and then \$4 for each additional month.
2nd month and on

$$35 + 4(x-1)$$

2. James is going to join a gym which charges him \$89 for the first month and then \$26 for each additional month.
2nd month & on

$$89 + 26(x-1)$$

3. Josh is planning an anniversary dinner for his parents. At Luigi's, they charge him \$245 for the first 10 guests and then \$17.50 for each additional guest.
11th guest and on

$$245 + 17.50(x-10)$$

4. The Beach Shack rents boats for \$60 for the first three hours and \$30 for each hour after that.

$$60 + 30(x-3)$$

5. Admission for groups of students to Ocean World is \$330 for the first twenty students. Each student after that must pay \$11.50.

$$330 + 11.50(x-20)$$

6. Melanie runs a lawn mowing business and charges \$50 for the first time they mow your yard and \$25 for each additional time they come back to mow your lawn.

$$50 + 25(x-1)$$

7. The zoo offers special admission rates for large groups of visitors. The zoo charges \$7.50 admission for the first visitor and \$5.50 for each additional visitor in the group. Write an equation for the total cost of admission in terms of the number of visitors. How much is admission for a group of 8 visitors?

$$7.50 + 5.50(x-1)$$

$$7.50 + 5.50(8-1)$$

$$7.50 + 5.50(7)$$

$$7.50 + 38.50$$

$$\boxed{46.00 \text{ for } 8 \text{ visitors}}$$

8. The jewelry store has a special on shirts. If you purchase 2 shirts for \$65, each additional shirt is \$24.99. Write an equation that represents that total cost of shirts based on the number of shirts purchased. What is the total cost of purchasing 4 shirts?

$$65 + 24.99(x-2)$$

$$65 + 24.99(4-2)$$

$$65 + 24.99(2)$$

$$65 + 49.98$$

$$\boxed{\$114.98 \text{ for } 4 \text{ shirts}}$$