Unit 2 Practice Problems

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Lesson 1

Problem 1

In a fruit basket there are 9 bananas, 4 apples, and 3 plums.

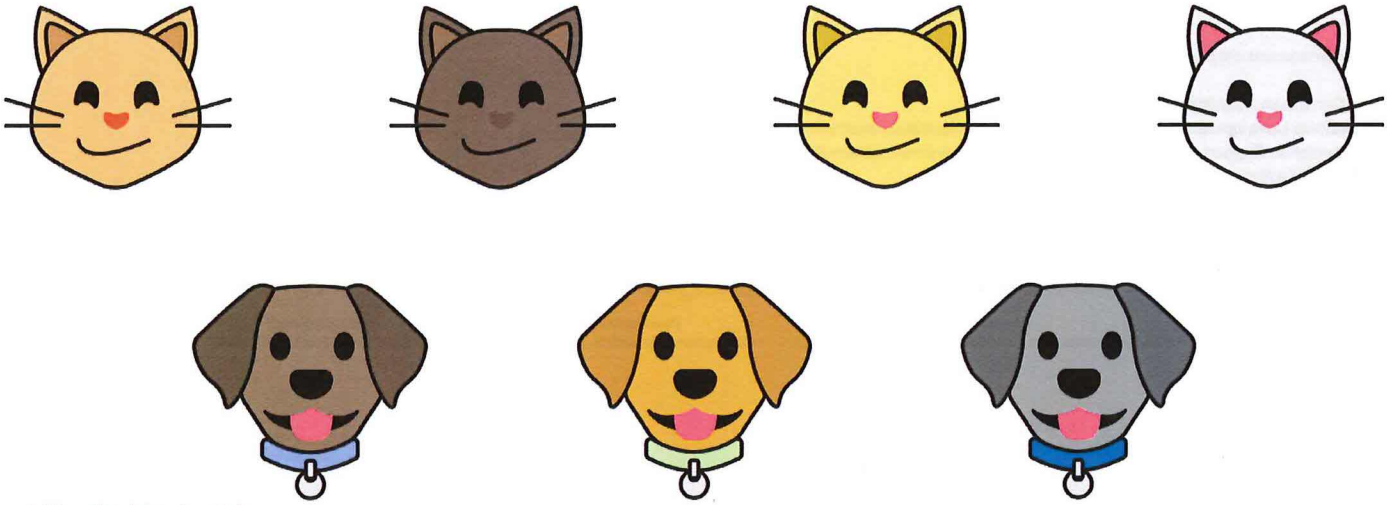
1. The ratio of bananas to apples is _____ : _____.
2. The ratio of plums to apples is _____ to _____.
3. For every _____ apples, there are _____ plums.
4. For every 3 bananas there is one _____.

Solution

1. 9, 4
2. 3, 4
3. 4, 3
4. plum

Problem 2

Complete the sentences to describe this picture.



1. The ratio of dogs to cats is _____.

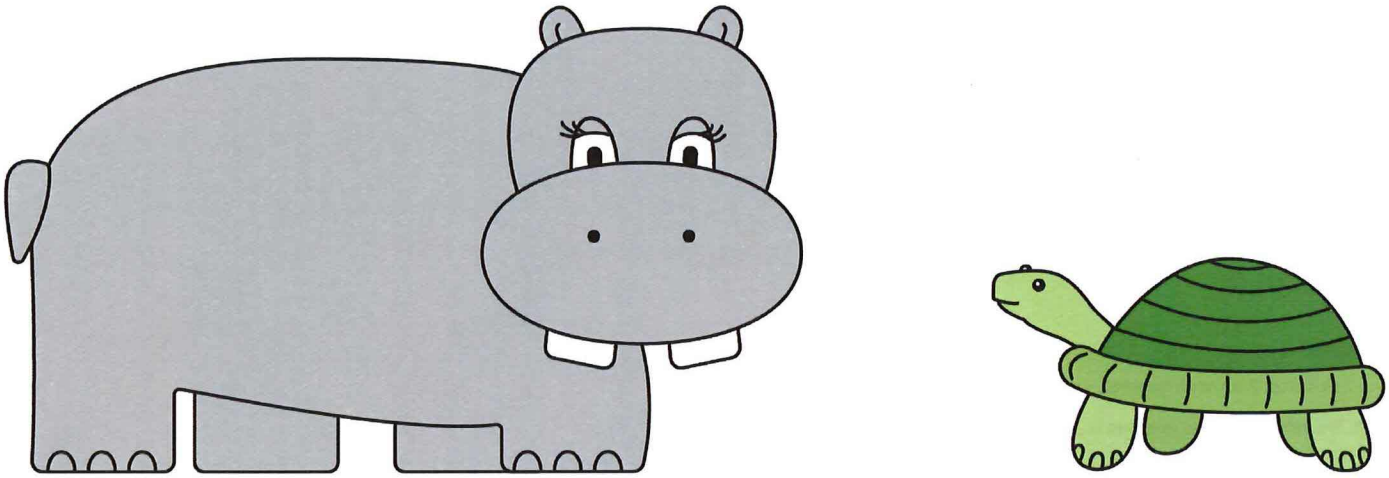
2. For every _____ dogs, there are _____ cats.

Solution

1. 3 to 4
2. 3, 4

Problem 3

Write two different sentences that use ratios to describe the number of eyes and legs in this picture.



Solution

Answers vary. Sample responses:

- The ratio of legs to eyes is 8 to 4.
- The ratio of eyes to legs is 4 : 8.
- There are 2 legs for every eye.
- There are 4 legs for every 2 eyes.

Problem 4

(from Unit 1, Lesson 17)
Choose an appropriate unit of measurement for each quantity.

1. area of a rectangle
2. volume of a prism
3. side of a square
4. area of a square
5. volume of a cube

- cm
- cm^3
- cm^2

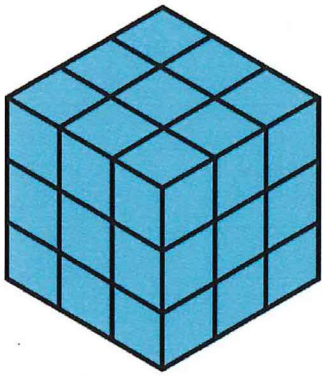
Solution

1. cm^2
2. cm^3
3. cm
4. cm^2
5. cm^3

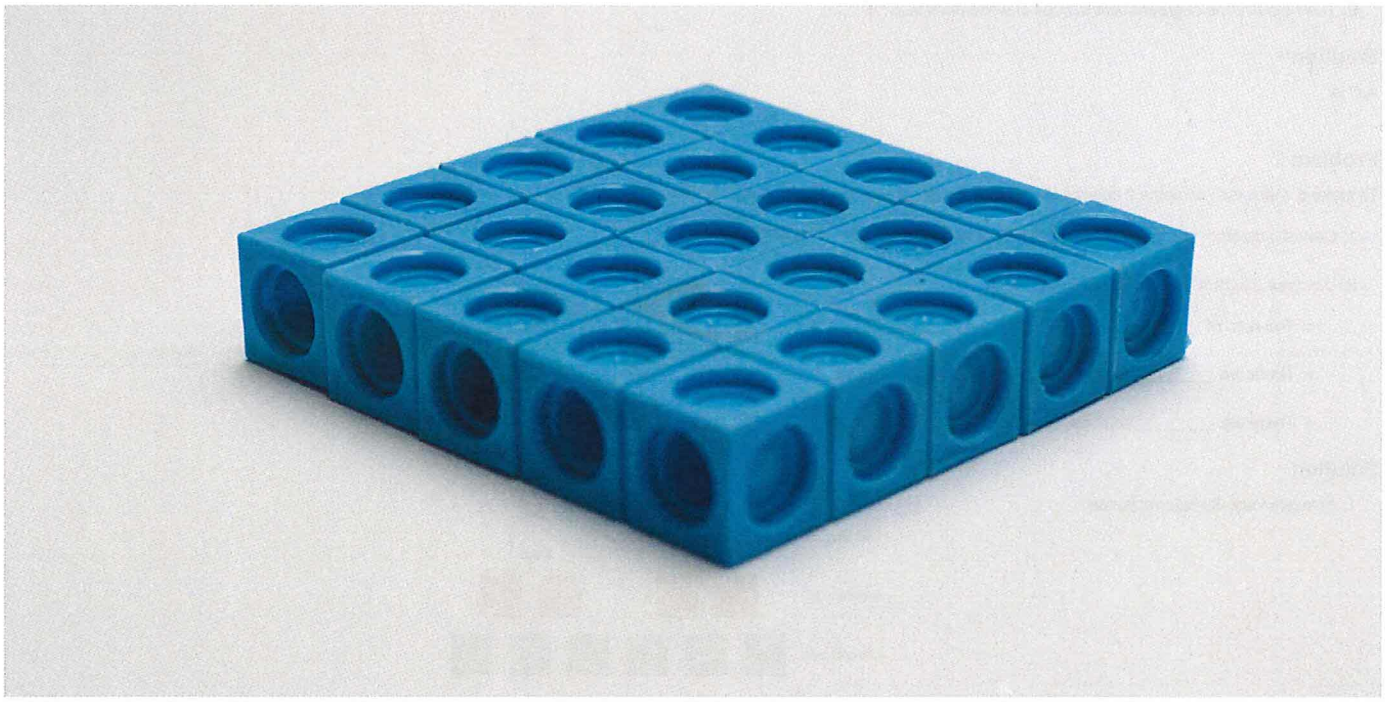
Problem 5

(from Unit 1, Lesson 16)
Find the volume and surface area of each prism.

1. Prism A: 3 cm by 3 cm by 3 cm



2. Prism B: 5 cm by 5 cm by 1 cm



3. Compare the volumes of the prisms and then their surface areas. Does the prism with the greater volume also have the greater surface area?

Solution

1. Volume: 27 cubic inches, surface area: 54 square inches

2. Volume: 25 cubic inches, surface area: 70 square inches

3. Prism A has a greater volume, but Prism B has a greater surface area.

Problem 6

(from Unit 1, Lesson 13)
Which figure is a triangular prism? Select **all** that apply.