

Perimeter, Circumference, Area and Ratio

Long-Term Memory Review – Grade 6

Review 1

1. Which procedure is used to find the perimeter of any polygon?
 - A) Add all the lengths
 - B) Multiply length times width ($l \cdot w$)
 - C) Add only one length and one width
 - D) Multiply all of the lengths

2. What is the formula used to find the circumference of a circle?

3. Which procedure is used to find the area of a square?
 - A) Add all the lengths ($S + S + S + S$)
 - B) Multiply all the sides ($S \cdot S \cdot S \cdot S$)
 - C) Add two sides together ($S + S$)
 - D) Multiply two sides together ($S \cdot S$)

4. What are the different ways that a ratio can be written?

5. Does the order of the values in a ratio matter?

6. Should a ratio always be simplified?

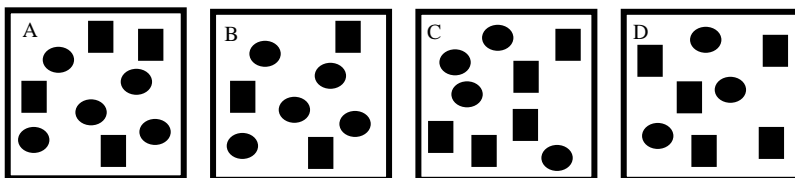
7. What is the ratio of **boys** to **girls** in your class?
 What is the ratio of **girls** to **boys** in your class?
 How are these two ratios different?

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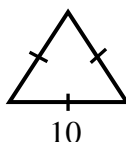
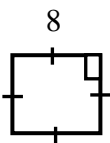
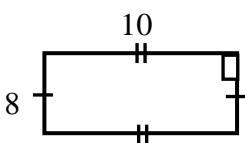
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Review 2

1. Which picture shows a ratio of 5 rectangles to 3 ovals?



2. What is the perimeter of each of the following figures? Remember that to find perimeter, the lengths of all of the sides are added together.



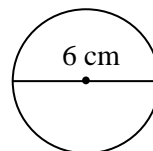
3. What is the procedure used to find the area of a rectangle?

- A) Add all four sides together $(l + w + l + w)$
- B) Multiply all four sides together $(l \cdot w \cdot l \cdot w)$
- C) Add length plus width $(l + w)$
- D) Multiply length times width $(l \cdot w)$

4. What is the formula to find the area of a triangle?

- A) Multiply all three sides
- B) Add all three sides
- C) Multiply the base times the height times one half $\left(\frac{1}{2} \cdot b \cdot h\right)$
- D) Add the base plus the height plus one half $\left(\frac{1}{2} + b + h\right)$

5. What is the circumference of this circle? Use $\pi = 3.14$. Be sure to show how you got your answer. Remember that the circumference formula is $C = 2\pi r$ or $C = \pi d$.



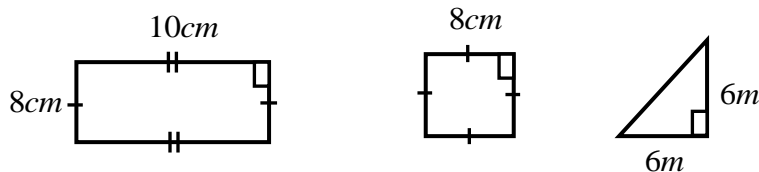
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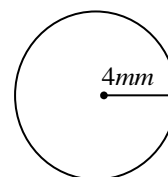
Review 3

- There are 5 red sports cars and 10 drivers. What is the ratio of drivers to cars?
- There are 5 elephants, 6 tigers, 4 bears, and 5 zoo keepers. What is the ratio of animals to zoo keepers?
- What is the area of each of the following figures? Remember that the formula for area of a rectangle is $A = l \cdot w$, the formula for area of a square is $A = S \cdot S$, and the formula for area of a triangle is

$$\text{is } A = \frac{1}{2} \cdot b \cdot h$$



- What is the formula used for finding the area of a circle?
- What is the circumference of this circle? Use $\pi = 3.14$. Be sure to show how you got your answer.



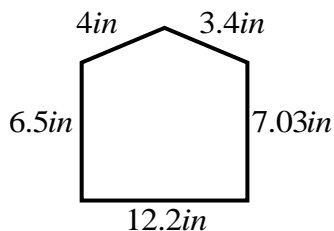
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Review 4

1. What is the ratio of black squares to red squares on a checkerboard ?

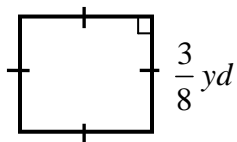
2. What is the perimeter of the figure below?



3. Mary wants to carpet 2 rooms. She must find how many square feet of carpet she needs. One room is 10 feet by 15 feet and the other room is 8 feet by 7 feet. How many total square feet of carpet does Mary need for both of her rooms?

4. What is the diameter of a circle that has a circumference of 6.28 feet?
Use $\pi = 3.14$.

5. What is the area of the figure below?



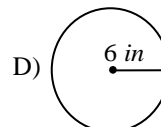
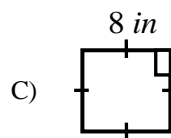
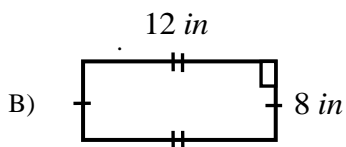
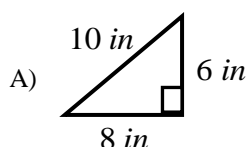
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Quiz

1. To find the perimeter of a square, rectangle, or a triangle, _____ all of the lengths of the sides.

2. Which figure has an area of 96 square inches?



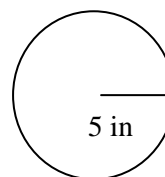
3. What is the ratio of black circles to white circles?



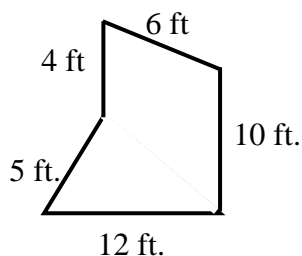
4. What are the three ways that a ratio can be written?

5. What is the circumference of the circle below rounded to the nearest whole number? Use $\pi = 3.14$. Be sure to show how you found the answer.

- A) 15 in. B) 16 in. C) 31 in. D) 79 in.



6. Joe needs to put a fence around his garden. The fencing he wants comes in rolls of 10 feet. How many rolls of fencing does Joe need to buy to enclose his garden?



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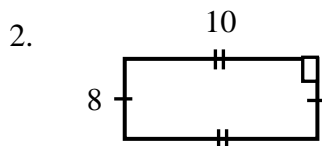
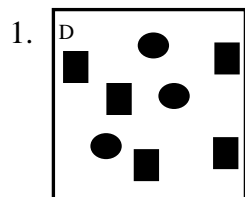
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ANSWERS

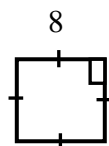
Review 1 Answers

1. A) Add all the lengths
2. $C = 2\pi r$ or $C = \pi d$
3. D) Multiply two sides together ($s \times s$)
4. $a ; b$ or a to b or $\frac{a}{b}$
5. Yes
6. No. It depends on the context.
7. First two answers depend on the class. In a class of 15 girls and 13 boys, the answers would be 13:15 and 15:13, respectively. The ratios are reciprocals or inverses.

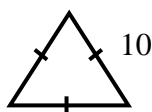
Review 2 Answers



Perimeter = 36



Perimeter = 32



Perimeter = 30

3. D) Multiply length times width ($l \times w$)
4. C) Multiply the base times the height times one half $\left(\frac{1}{2} \times b \times h\right)$
5. 18.84 cm

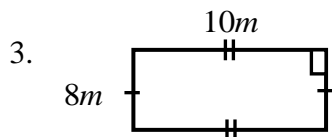
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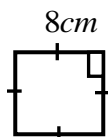
Review 3 Answers

1. $10:5 = 2:1$

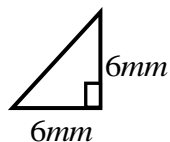
2. $15:5 = 3:1$



Area = $80 m^2$



Area = $64 m^2$



Area = $18 mm^2$

4. $c = \pi r^2$

5. 25.12 mm

Review 4 Answers

1. 1:1

2. 33.13 in.

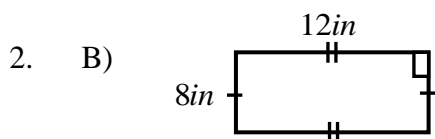
3. $206 ft.^2$

4. 2 ft.

5. $\frac{9}{64} yd.^2$

QUIZ Answers

1. add



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3. 2:3

4. 2:3 or 2 to 3 or $\frac{2}{3}$

5. C) 31 in.

6. 4 rolls