

Unit 2: Ratios and Proportional Relationships

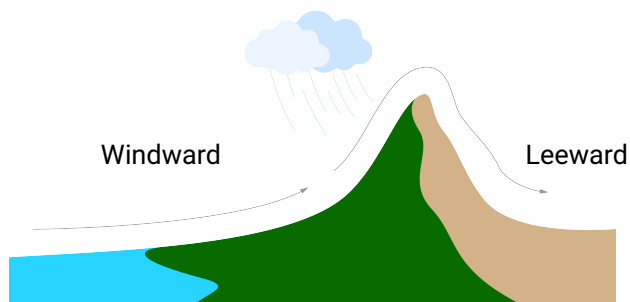


SBAC alignment for *Unit 2: Ratios and Proportional Relationships Activity 1*

Claim(s)	Claim 1: Concepts and Procedures Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Assessment Target(s):	1 A: Understand ratio concepts and use ratio reasoning to solve problems.
Content Domain:	Ratio and Proportional Relationships
Standard(s):	6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
DOK:	2

Unit 2: Ratios and Proportional Relationships *Activity 1*

Different sides of a mountain experience different amounts of rain. The windward side of a mountain faces towards the wind and the leeward side faces away from the wind.



Suppose that the leeward side of a mountain receives 3 inches of rain, and the windward side of the same mountain receives 8 inches of rain. Identify the equivalent ratio(s) of leeward rain to windward rain. Select all that apply.

- (a) 20:25
- (b) 30:800
- (c) 16:6
- (d) 36:96

SBAC alignment for *Unit 2: Ratios and Proportional Relationships Activity 2*

Claim(s)	Claim 1: Concepts and Procedures Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Assessment Target(s):	1 A: Understand ratio concepts and use ratio reasoning to solve problems.
Content Domain:	Ratios and Proportional Relationships
Standard(s):	6.RP.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. <i>For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."</i>
DOK:	2

Unit 2: Ratios and Proportional Relationships *Activity 2*

In February, Lihue (on Kaua'i) experienced an average of 7 hours of sunlight for every 17 hours of darkness.

1. Write a ratio that compares the number of hours of sunlight to the number of hours of darkness.

2. Describe what the ratio 24:7 means in terms of the hours of sunlight in Lihue.

SBAC alignment for *Unit 2: Ratios and Proportional Relationships Activity 3*

Claim(s)	Claim 1: Concepts and Procedures Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Assessment Target(s):	1 A: Understand ratio concepts and use ratio reasoning to solve problems.
Content Domain:	Ratios and Proportional Relationships
Standard(s):	6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
DOK:	2

Unit 2: Ratios and Proportional Relationships *Activity 3*

1. Over the last 4 hours, it has rained 30.6 millimeters on O'ahu. What is the unit rate of rainfall per hour?

millimeters of rain per hour

2. If it keeps raining like this, how many millimeters of rain will fall in 7 hours?

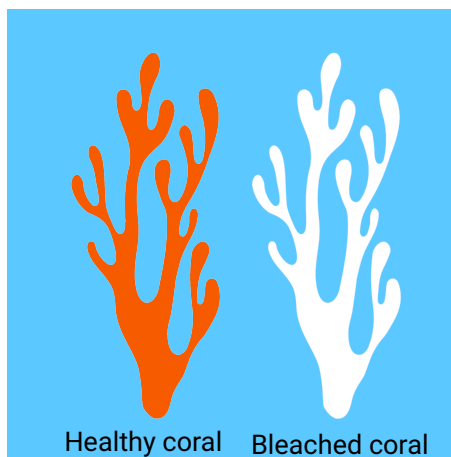
millimeters of rain

SBAC alignment for *Unit 2: Ratios and Proportional Relationships Activity 4*

Claim(s)	Claim 1: Concepts and Procedures Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Assessment Target(s):	1 A: Understand ratio concepts and use ratio reasoning to solve problems.
Content Domain:	Ratio and Proportional Relationships
Standard(s):	6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
DOK:	2

Unit 2: Ratios and Proportional Relationships *Activity 4*

Corals are really important animals but they are very sensitive to temperature changes in the ocean. When the ocean gets too hot, the corals get sick and turn completely white. This is called coral bleaching. However, if the temperature only stays hot for a short amount of time and then goes back down to normal, then the corals will regain their bright beautiful colors and health. If the temperature stays warm for too long, the corals will die.



It's been really warm lately and you and your friends are diving and check on the health of a nearby coral reef. You find that for every 5 square meters of healthy coral, there are 8 square meters of bleached coral.

Identify the equivalent ratio(s) of healthy coral to bleached coral. Select all that apply.

- (a) 20:23
- (b) 40:25
- (c) 50:800
- (d) 60:96

