

NWEA Assessment Item Illustrating 6.RP.A.3

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Domain: Ratios and Proportional Relationships

Calculator Availability: Yes

6.RP.A: Understand ratio concepts and use ratio reasoning to solve problems.

Use the information to complete the task.

Ramiro made a drink by mixing 4 tablespoons (Tbsp) of chocolate syrup with 12 fluid ounces (fl oz) of milk.

Choose all the mixtures that have the same ratio of chocolate syrup to milk as Ramiro's drink.

- ☐ A. 2 Tbsp of chocolate syrup mixed with 6 fl oz of milk
- ☐ B. 5 Tbsp of chocolate syrup mixed with 13 fl oz of milk
- ☐ C. 6 Tbsp of chocolate syrup mixed with 10 fl oz of milk
- ☐ D. 8 Tbsp of chocolate syrup mixed with 16 fl oz of milk
- ☐ E. 10 Tbsp of chocolate syrup mixed with 30 fl oz of milk

Alignment: 6.RP.A.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.

Ratios and proportional relationships are both foundational for future study in mathematics and science and used frequently in everyday life. This item requires students to understand the meaning of equivalent ratios in order to identify equivalent ratios with different quantities.

Coherence: Ratio concept development builds on work that students performed in grade 5, when they began to analyze patterns and relationships^{5.OA.A} and to solve problems involving multiplication and division of fractions.^{5.NF.B} Solving problems involving unit rate and identifying equivalent ratios prepares students for proportional relationships^{7.RP.A} and builds a foundation for function understanding.^{8.F.A/B}

Rigor: This item attends to conceptual understanding and application. The conceptual component is the recognition of the grade-level concept of ratio to identify equivalent ratios. This item requires an application of mathematics that is directly indicated in the real-world scenario.

Answer Key:

Use the information to complete the task.

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