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| Australian Curriculum Year 7 Mathematics Sample assessment | Task-specific standards — matrix  Refreshing drinks | Name |
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**Purpose of assessment:** Students use procedures and an understanding of ratios, fractions and percentages to solve problems when mixing ingredients for fruity drinks.

|  | |  | A | B | C | D | E |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Understanding and Skills dimensions | Understanding & Fluency | Procedural fluency — recall and use of facts, definitions, technologies and procedures (Q1–6, 7ab, 8, 9)  Expressing quantities as ratios, fractions, and percentages. Operating with fractions and percentages to solve ratio problems. | Use of procedures to express quantities as ratios, fractions, and percentages.  Use of ratios and operations involving fractions or percentages to solve problems involving ratios of three quantities (Q8, 9). | Use of equivalent fractions and ratios, and of operations involving fractions or percentages, to solve problems involving ratios of two and three quantities (Q5–7b). | Use of procedures to express quantities as ratios, fractions, equivalent fractions and percentages (Q1–3).  Use of equivalent fractions and ratios, and of operations involving fractions or percentages, to find solutions in problems involving ratios (Q4). | Some use of procedures to express quantities as ratios, fractions, equivalent fractions and percentages.  Some progress in solving problems involving ratios. | Partial use of procedures to express some quantities as ratios, fractions, equivalent fractions and percentages. |
| Use of mathematical language, conventions and symbols (Q1–10)  Using conventions to express quantities as ratios, fractions and percentages. Showing working and making use of units. | Effective and clear use of conventions when writing ratios and fractions. Detailed working and consistent use of appropriate units. | Consistent use of conventions when writing ratios and fractions. Consistent working and use of appropriate units. | Satisfactory working and use of conventions when writing ratios, fractions units. | Use of aspects of conventions when writing ratios and fractions. Some working and use of units. | Partial writing of ratios and fractions. |
| Problem solving & Reasoning | Application of problem-solving approaches  (Q7c,10)  Solving problems involving ratios. | Systematic application of problem-solving approaches to correct a drink mixed in an incorrect ratio and to determine the required quantities for mixing a punch. | Application of problem-solving approaches to correct a drink mixed in an incorrect ratio or to determine the required quantities for mixing a punch. | Progress in application of problem-solving approaches to correct a drink mixed in an incorrect ratio or to determine the required quantities for mixing a punch. | Some application of problem-solving approaches to correct a drink mixed in an incorrect ratio. | Partial application of problem-solving approaches. |