Applications of fractions

Remember that all of something is one whole.

Answer the following questions.

1 Pip's mud pie contains 2 cups of water for every 3 cups of dry soil. What fraction of the pie is water?

_____

2 A fruit bowl contains 5 apples, 3 plums and 7 apricots. What fraction of the pieces of fruit are apricots?

_____

3 Mick spent $\frac{1}{3}$ of his pocket money on a movie ticket, and $\frac{1}{8}$ on bus fare. What fraction of his pocket money was left?

_____

4 A recipe for fruit cake lists $1\frac{1}{3}$ cups of sultanas and $\frac{3}{4}$ cup of raisins. How many cups of dried fruit is this?

_____

5 Oliver ate 3 slices of cake and Ian ate 4 slices. If there were 5 slices remaining, what fraction of the cake did they eat?

_____

6 Ngaire ran $2\frac{3}{4}$ km on Saturday and $1\frac{7}{8}$ km on Sunday. How much further did she run on Saturday than on Sunday?

_____

7 Nick skateboards to school half the time, he goes on the bus a third of the time, and his mother drops him off on the remaining days. On what fraction of school days does his mother drop him at school?

_____

8 Airini, Sam and Jess painted their Grandma's fence. If Airini painted for $2\frac{1}{2}$ hours, Sam for $1\frac{3}{4}$ hours, and Jess for $1\frac{1}{6}$ hours, how many hours did it take altogether?

_____

9 Eighteen students share $4\frac{1}{2}$ kg of cherries equally. What mass of cherries does each student get?

_____

10 Five sixths of Adam's lollies are jelly beans. If he swaps two thirds of his jelly beans for a marble, what fraction of his lollies did the marble cost?

_____

11 Anna was sick for five out of the 40 mathematics periods in the term, and she had music lessons during three periods. For what fraction of the mathematics periods was she present?

_____

12 Zoe's pack contains a sleeping bag, which weighs $3\frac{1}{2}$ kg, her clothes, $2\frac{3}{4}$ kg, and her food, $2\frac{1}{3}$ kg. If her filled pack weighs $10\frac{1}{2}$ kg, what does her empty pack weigh?

_____

Mini-task

A class of 24 students is planning a picnic. They need to buy:
- pizzas at $7.99 each, and each pizza is to be shared between five people
- an ice block for each person, which cost $7.49 for a mixed packet of four
- a carton of juice for each person; these cost $1.99 each
- 2.15 kg mandarins at $4.49 per kilo
- lollies for the treasure hunt: a packet of butterscotch and a packet of mints, which each cost $3.99, and a packet of toffees, which cost $4.99.

In the space below, work out the following.
- The total cost of the food.
- The total cost for each student.
- The ice blocks were stored in a school freezer, but Adam left the door open. The freezer is supposed to be at -4 °C, but by the time it was discovered, the temperature was 1 °C. By how much had the temperature risen?
- $\frac{1}{4}$ of the ice blocks were raspberry, $\frac{1}{3}$ were lemonade, and the rest were orange. What fraction were orange?
- The lollies are to be divided up into identical smaller bags, each of which must have the same number of each flavour. There will not be enough bags for everybody — they are to be used for a treasure hunt. There are 24 butterscotch, 30 mints and 42 toffees. What is the maximum number of bags that they can make, and how many of each type of lolly will be in each one?