

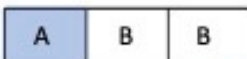
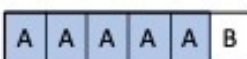
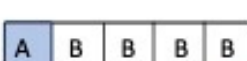
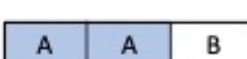




RATIOS AND FRACTIONS

Cut out and match the cards. Make some extra cards so that there is at least one card of each type in each set

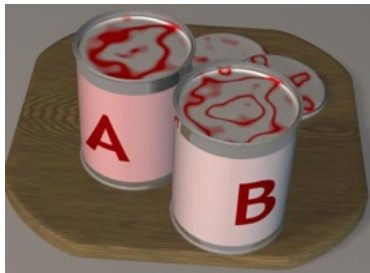
FRACTIONS	DIAGRAMS	WORDS	RATIOS
Ali receives $\frac{1}{4}$ of the total F1	 D1	Ali and Busi both receive the same amount W1	The money is shared between Ali and Busi in the ratio 1 : 2 R1
Ali receives $\frac{2}{3}$ of the total F2	 D2	Busi receives three quarters of the total. W2	The money is shared between Ali and Busi in the ratio 1 : 3 R2
Ali receives $\frac{1}{2}$ of the total F3	 D3	Busi receives double the amount that Ali receives. W3	The money is shared between Ali and Busi in the ratio 1 : 4 R3
Ali receives $\frac{1}{5}$ of the total F4	 D4	Ali receives half the amount Busi receives. W4	The money is shared between Ali and Busi in the ratio 2 : 3 R4
Ali receives $\frac{1}{3}$ of the total F5	 D5	Ali receives double the amount that Busi receives W5	The money is shared between Ali and Busi in the ratio 3 : 5 R5
Ali receives $\frac{4}{5}$ of the total F6	 D6	Busi receives three times the amount that Ali receives. W6	The money is shared between Ali and Busi in the ratio 1 : 1 R6
Ali receives $\frac{2}{5}$ of the total F7	 D7	Ali receives one quarter of the amount that Busi receives W7	The money is shared between Ali and Busi in the ratio 2 : 1 R7
Ali receives $\frac{3}{5}$ of the total F8	 D8	Ali receives four tenths of the total. W8	The money is shared between Ali and Busi in the ratio 3 : 2 R8
F9	D9	W9	The money is shared between Busi and Ali in the ratio 1 : 4 R9
F10	D10	W10	The money is shared between Busi and Ali in the ratio 1 : 5 R10

HELP

Some sets have two cards of the same type. Match the fraction and diagram cards first. Then include the word cards in each set and finally include the ratio cards in each set.

NEXT

Make up a few more sets of cards to add to the collection.



Paint A is made up from red and white paint in the ratio 1:3 and paint B is made up from red and white paint in the ratio 1:7. The cans are the same size.

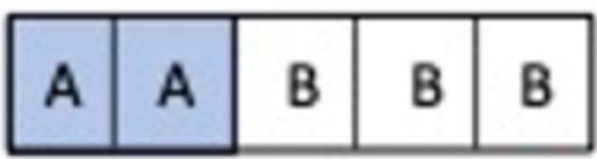
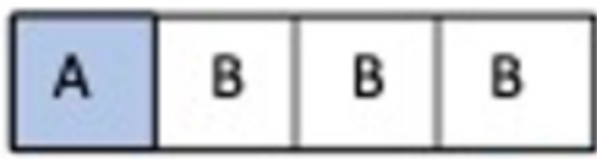
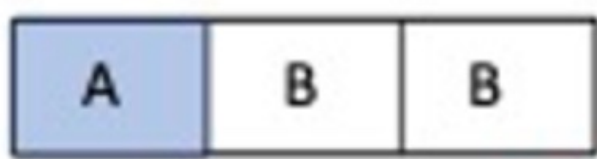
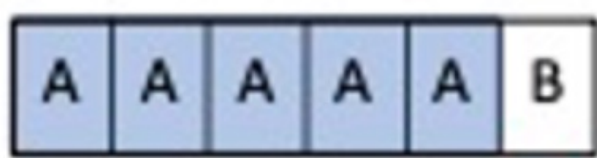
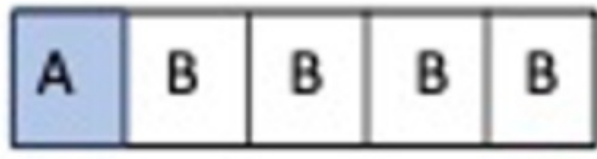
You can mix the paints to produce different shades of pink. Explain how to find the ratio of red paint to white paint if you mix one can of A with one can of B.

What is the ratio of red to white if 1 can of A is mixed with 2 cans of B? What about mixing one can of A with 6 cans of B?

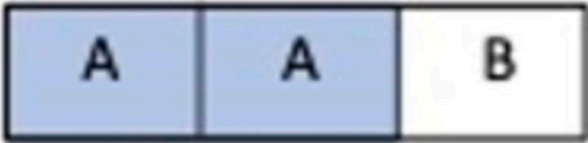


What is the least number of cans of each type needed to produce pink paint containing red and white in the ratio 1:4?

<https://aiminghigh.aimssec.ac.za/mixing-paints/>

Go to the NRICH website and mix your own paint and see the colours change. This problem is adapted from the NRICH tasks [Mixing Paints](#) and [Mixing More Paints](#) with permission of the University of Cambridge. All rights reserved.

<p>Ali receives $\frac{1}{4}$ of the total</p> <p style="text-align: right;">F1</p>	 <p style="text-align: right;">D1</p>
<p>Ali receives $\frac{2}{3}$ of the total</p> <p style="text-align: right;">F2</p>	 <p style="text-align: right;">D2</p>
<p>Ali receives $\frac{1}{2}$ of the total</p> <p style="text-align: right;">F3</p>	 <p style="text-align: right;">D3</p>
<p>Ali receives $\frac{1}{5}$ of the total</p> <p style="text-align: right;">F4</p>	 <p style="text-align: right;">D4</p>
<p>Ali receives $\frac{1}{3}$ of the total</p> <p style="text-align: right;">F5</p>	 <p style="text-align: right;">D5</p>

<p>Ali and Busi both receive the same amount</p> <p style="text-align: right;">W1</p>	<p>The money is shared between Ali and Busi in the ratio 1 : 2</p> <p style="text-align: right;">R1</p>
<p>Busi receives three quarters of the total.</p> <p style="text-align: right;">W2</p>	<p>The money is shared between Ali and Busi in the ratio 1 : 3</p> <p style="text-align: right;">R2</p>
<p>Busi receives double the amount that Ali receives.</p> <p style="text-align: right;">W3</p>	<p>The money is shared between Ali and Busi in the ratio 1 : 4</p> <p style="text-align: right;">R3</p>
<p>Ali receives half the amount Busi receives.</p> <p style="text-align: right;">W4</p>	<p>The money is shared between Ali and Busi in the ratio 2 : 3</p> <p style="text-align: right;">R4</p>
<p>Ali receives double the amount that Busi receives</p> <p style="text-align: right;">W5</p>	<p>The money is shared between Ali and Busi in the ratio 3 : 5</p> <p style="text-align: right;">R5</p>

<p>Ali receives $\frac{4}{5}$ of the total</p> <p>F6</p>	 <p>D6</p>
<p>Ali receives $\frac{2}{5}$ of the total</p> <p>F7</p>	 <p>D7</p>
<p>Ali receives $\frac{3}{5}$ of the total</p> <p>F8</p>	 <p>D8</p>
<p>F9</p>	<p>D9</p>
<p>F10</p>	<p>D10</p>

<p>Busi receives three times the amount that Ali receives.</p> <p style="text-align: right;">W6</p>	<p>The money is shared between Ali and Busi in the ratio 1 : 1</p> <p style="text-align: right;">R6</p>
<p>Ali receives one quarter of the amount that Busi receives</p> <p style="text-align: right;">W7</p>	<p>The money is shared between Ali and Busi in the ratio 2 : 1</p> <p style="text-align: right;">R7</p>
<p>Ali receives four tenths of the total.</p> <p style="text-align: right;">W8</p>	<p>The money is shared between Ali and Busi in the ratio 3 : 2</p> <p style="text-align: right;">R8</p>
<p style="text-align: right;">W9</p>	<p>The money is shared between Busi and Ali in the ratio 1 : 4</p> <p style="text-align: right;">R9</p>
<p style="text-align: right;">W10</p>	<p>The money is shared between Busi and Ali in the ratio 1 : 5</p> <p style="text-align: right;">R10</p>