

Equivalence of Half and Two Quarters

Green

Circle $\frac{1}{2}$ of the images below and complete the statements

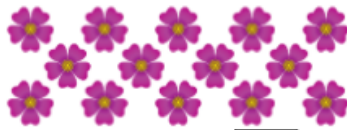


$$\frac{1}{2} \text{ of } 14 = \square$$

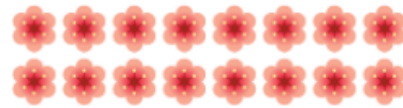


$$\frac{1}{2} \text{ of } 16 = \square$$

Circle $\frac{2}{4}$ of the images below and complete the statements.



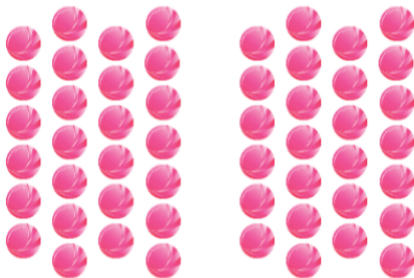
$$\frac{2}{4} \text{ of } 14 = \square$$



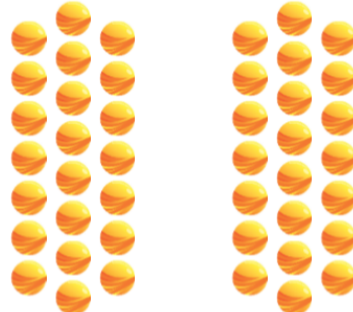
$$\frac{2}{4} \text{ of } 16 = \square$$

Use $<$, $>$ or $=$ to finish the statements below. Prove it using the images below.

A. $\frac{1}{2}$ of 26 $\square$ $\frac{2}{4}$ of 26



B. $\frac{1}{2}$ of 22 $\square$ $\frac{2}{4}$ of 22



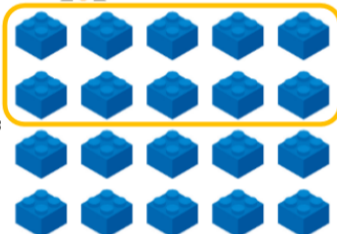
Ben is finding one half and two quarters by grouping the bricks below.

He says,



Half of the bricks is 10. Two quarters of the bricks is 8.

one half =



two quarters =



Find and explain the mistake that Ben has made.

Equivalence of Half and Two Quarters

Green

$$\frac{1}{2} \text{ of } 14 = 7; \quad \frac{1}{2} \text{ of } 16 = 8; \quad \frac{2}{4} \text{ of } 14 = 7; \quad \frac{2}{4} \text{ of } 16 = 8$$

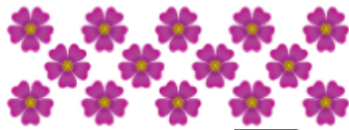


$$\frac{1}{2} \text{ of } 14 = \square$$

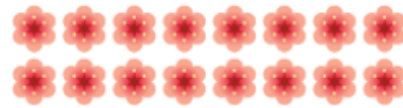


$$\frac{1}{2} \text{ of } 16 = \square$$

Circle $\frac{2}{4}$ of the images below and complete the statements.



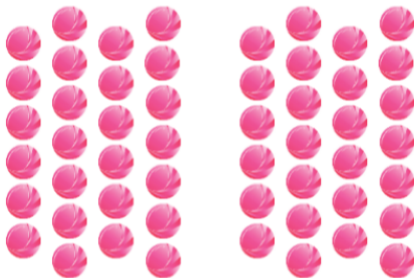
$$\frac{2}{4} \text{ of } 14 = \square$$



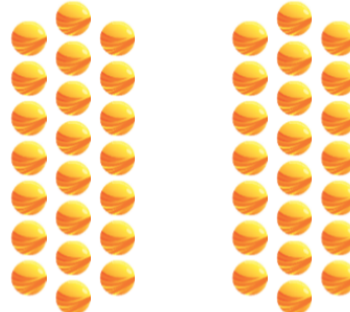
$$\frac{2}{4} \text{ of } 16 = \square$$

$$A = \frac{1}{2} \text{ of } 26 = \frac{2}{4} \text{ of } 26; \quad B = \frac{1}{2} \text{ of } 22 = \frac{2}{4} \text{ of } 22$$

A. $\frac{1}{2} \text{ of } 26 = \square \frac{2}{4} \text{ of } 26$



B. $\frac{1}{2} \text{ of } 22 = \square \frac{2}{4} \text{ of } 22$



Ben has correctly found half of the bricks but has incorrectly circled two quarters. He has circled two columns of bricks but he should have circled two rows.

He s



Half of the bricks is 10. Two quarters of the bricks is 8.

one half =



two quarters =

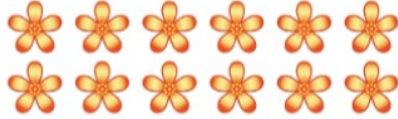


Find and explain the mistake that Ben has made.

Equivalence of Half and Two Quarters

Yellow

Circle $\frac{1}{2}$ of the images below and complete the statements

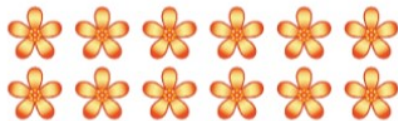


$$\frac{1}{2} \text{ of } \square = \square$$



$$\frac{1}{2} \text{ of } \square = \square$$

Circle $\frac{2}{4}$ of the images below and complete the statements.



$$\frac{2}{4} \text{ of } \square = \square$$



$$\frac{2}{4} \text{ of } \square = \square$$

Use $<$, $>$ or $=$ to finish the statements below. Prove it using the images below.

A. $\frac{2}{4}$ of $\square$ $\square$ $\frac{1}{2}$ of $\square$



B. $\frac{2}{4}$ of $\square$ $\square$ $\frac{1}{2}$ of $\square$

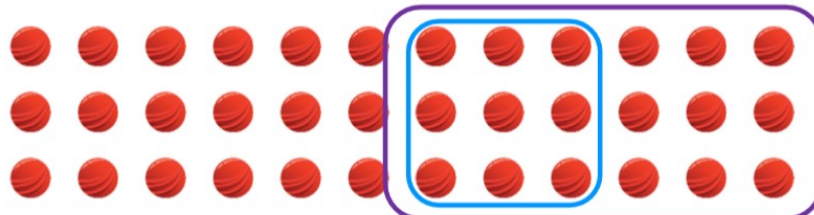


Annie is finding one half and two quarters by grouping the marbles below.

She says,



One half of the marbles is 9. Two quarters of the marbles is 18.



Find and explain the mistake that Annie has made.

Equivalence of Half and Two Quarters

Yellow

$\frac{1}{2}$ of 12 = 6; $\frac{1}{2}$ of 18 = 9; $\frac{2}{4}$ of 12 = 6; $\frac{2}{4}$ of 18 = 9

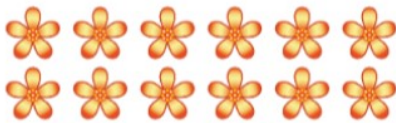


$$\frac{1}{2} \text{ of } \square = \square$$



$$\frac{1}{2} \text{ of } \square = \square$$

Circle $\frac{2}{4}$ of the images below and complete the statements.



$$\frac{2}{4} \text{ of } \square = \square$$



$$\frac{2}{4} \text{ of } \square = \square$$

A = $\frac{2}{4}$ of 20 = $\frac{1}{2}$ of 20; B = $\frac{2}{4}$ of 24 = $\frac{1}{2}$ of 24

A. $\frac{2}{4}$ of $\square$ $\square$ $\frac{1}{2}$ of $\square$

B. $\frac{2}{4}$ of $\square$ $\square$ $\frac{1}{2}$ of $\square$

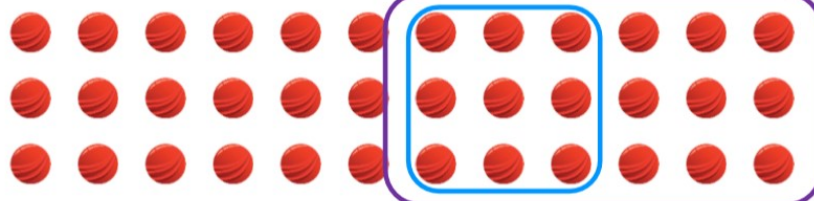


Annie has found two quarters of the marbles correctly because there are 36 in total. She has then found half of the two quarters and not the whole amount. Half is also 18 not 9.

She says,



One half of the marbles is 9. Two quarters of the marbles is 18.



Find and explain the mistake that Annie has made.

Equivalence of Half and Two Quarters

Red

Circle $\frac{1}{2}$ of the images below and complete the statements



$$\frac{1}{2} \text{ of } \boxed{} = \boxed{}$$

$$\frac{2}{4} \text{ of } \boxed{} = \boxed{}$$

Circle $\frac{2}{4}$ of the images below and complete the statements.

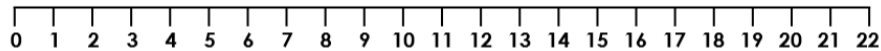


$$\frac{2}{4} \text{ of } \boxed{} = \boxed{}$$

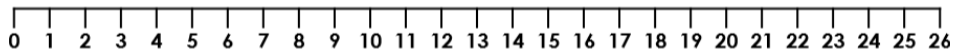
$$\frac{1}{2} \text{ of } \boxed{} = \boxed{}$$

Use $<$, $>$ or $=$ to finish the statements below. Prove it using the images below.

A. $\frac{2}{4}$ of 22 $\boxed{}$ $\frac{1}{2}$ of $\boxed{}$

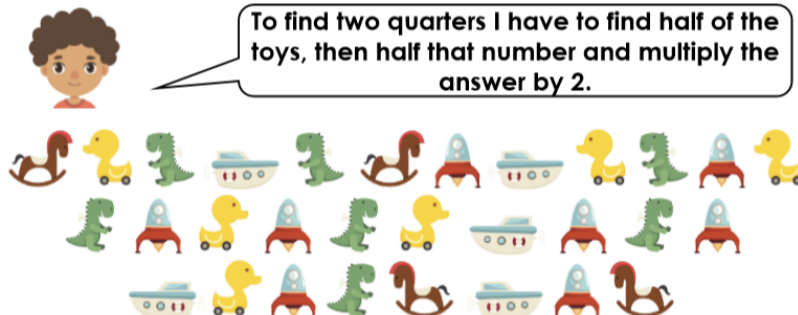


B. $\frac{2}{4}$ of 26 $\boxed{}$ $\frac{1}{2}$ of $\boxed{}$



Chris is finding one half and two quarters by grouping the toys below.

He says,



Is this the most efficient way to find two quarters? Explain your answer.

Equivalence of Half and Two Quarters

Red

A = $\frac{1}{2}$ of 24 = 12; $\frac{2}{4}$ of 24 = 12; B = $\frac{1}{2}$ of 30 = 15; $\frac{2}{4}$ of 30 = 15



$$\frac{1}{2} \text{ of } \square = \square$$

$$\frac{2}{4} \text{ of } \square = \square$$

Circle $\frac{2}{4}$ of the images below and complete the statements.

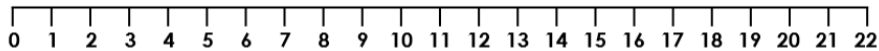


$$\frac{2}{4} \text{ of } \square = \square$$

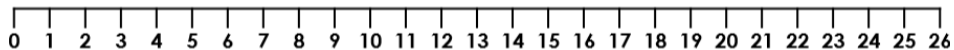
$$\frac{1}{2} \text{ of } \square = \square$$

A = $\frac{2}{4}$ of 22 = $\frac{1}{2}$ of 22; B = $\frac{2}{4}$ of 26 = $\frac{1}{2}$ of 26

A. $\frac{2}{4}$ of 22 $\square$ $\frac{1}{2}$ of $\square$

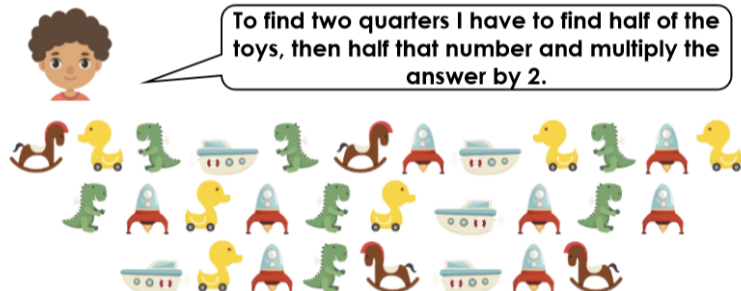


B. $\frac{2}{4}$ of 26 $\square$ $\frac{1}{2}$ of $\square$



Chris has found a method that will get the right answer but it is not efficient. As half and two quarters are equivalent, once he has halved the toys he already has the answer for half. He does not need to half this and multiply by 2.

He says,



Is this the most efficient way to find two quarters? Explain your answer.