

Mathematics

Using bar models to solve word problems



OAK
NATIONAL
ACADEMY

Lesson agenda

Recognise multiplication/division questions

Match bar models to questions

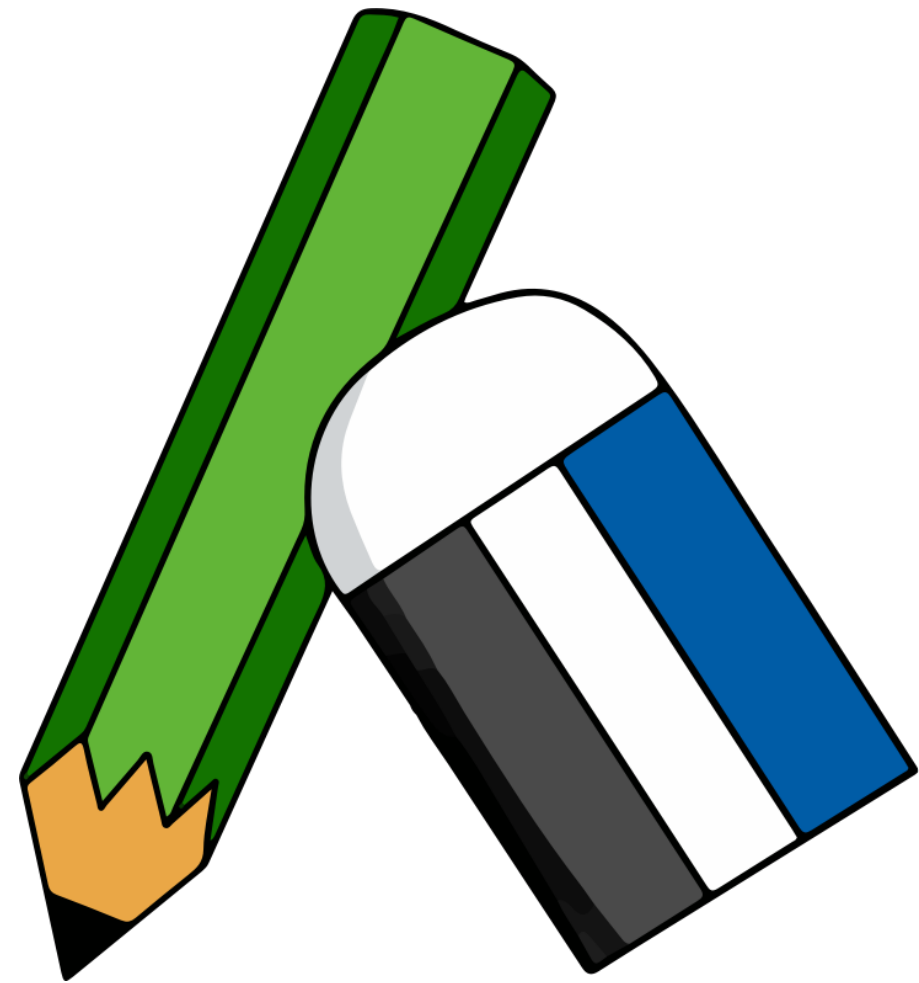
Explore what different bar models show

Independent work



You will need...

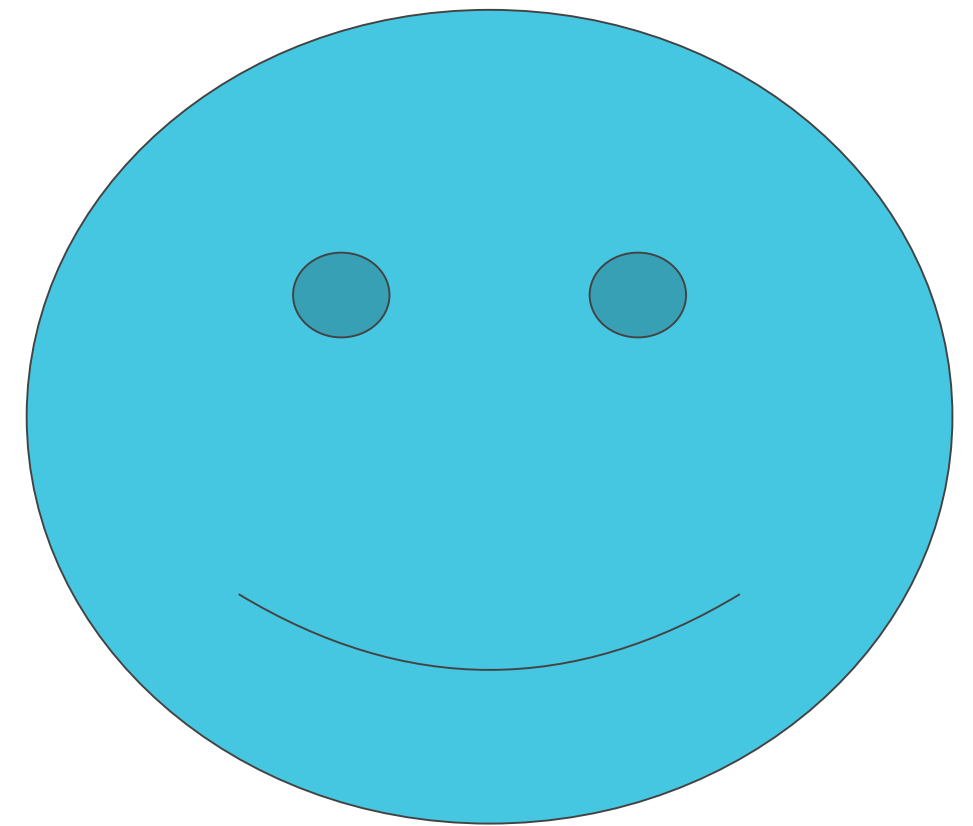
Pencil or pen



Paper



Can-do attitude



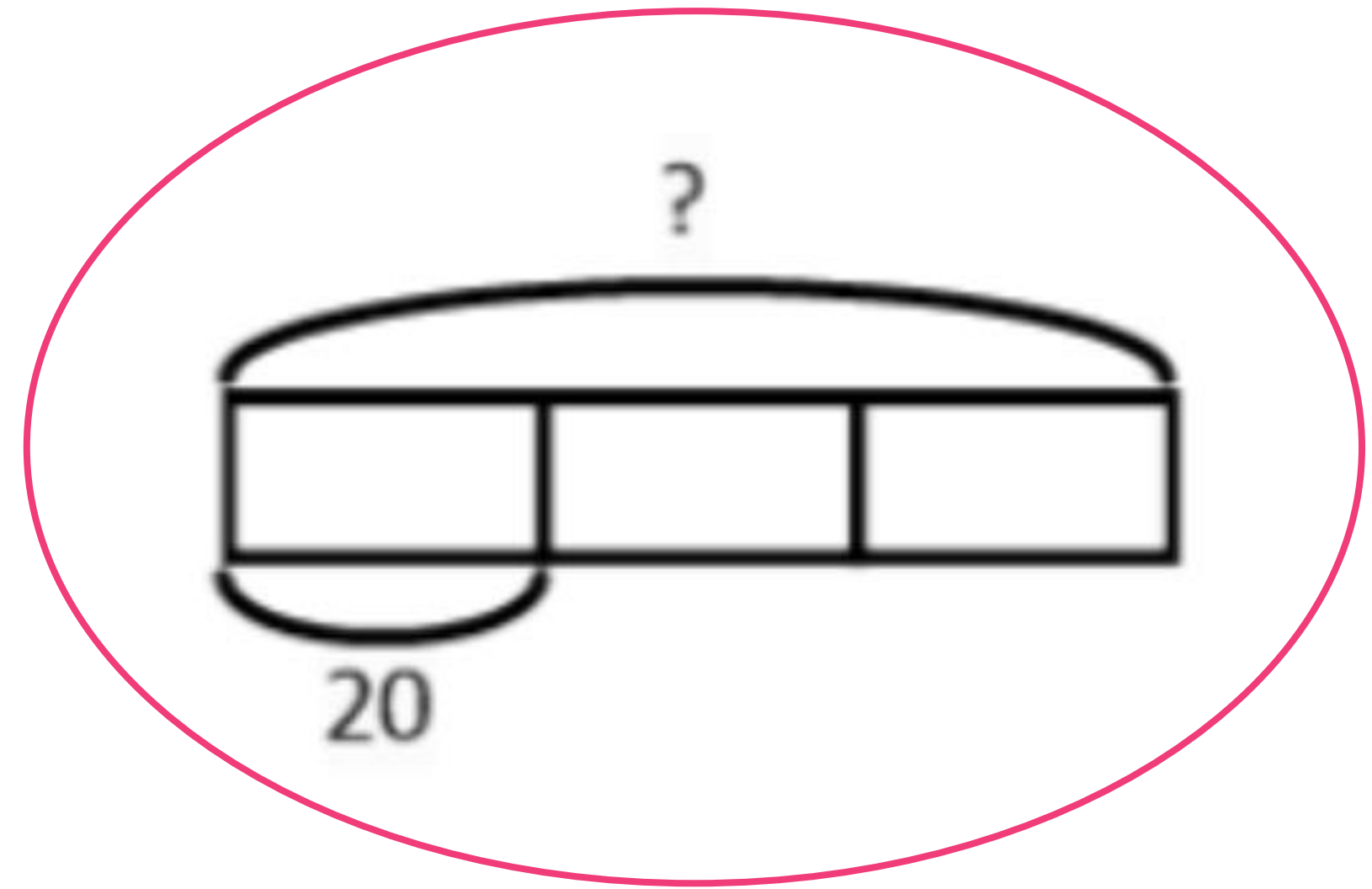
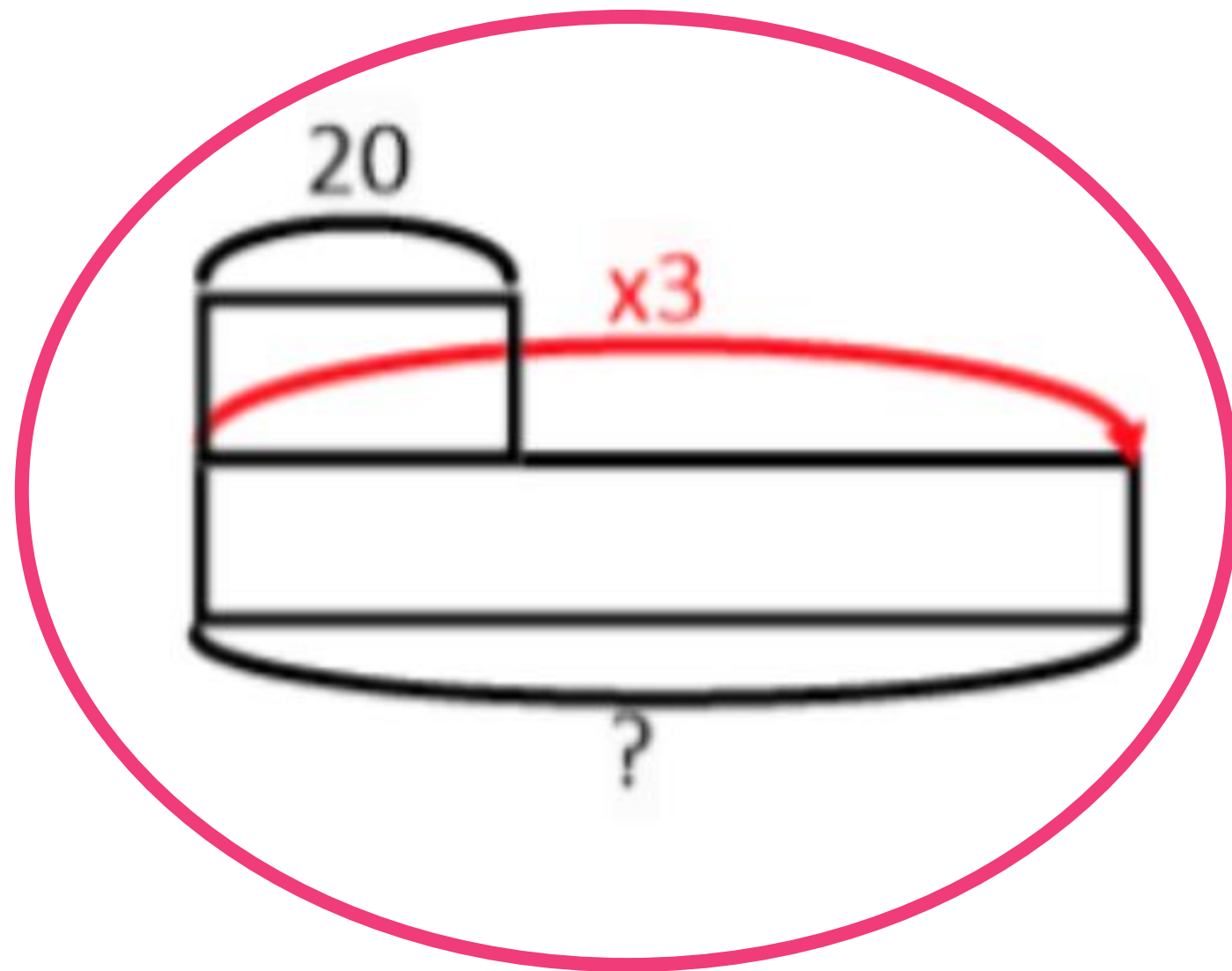
Warm-up

Which of these questions is asking the same thing?

Twice as many as 6	<del></del>	$14 \div 2$
Double 9	<del></del>	2×9
A third of 12	<del></del>	2×6
Ten times greater than 4	<del></del>	$12 \div 3$
Half of 14	<del></del>	4×10



**Robin hood shot his arrow 3 times as far as the Sheriff.
The Sheriff shot his arrow 20 meters.
How far did Robin Hood's arrow go?**

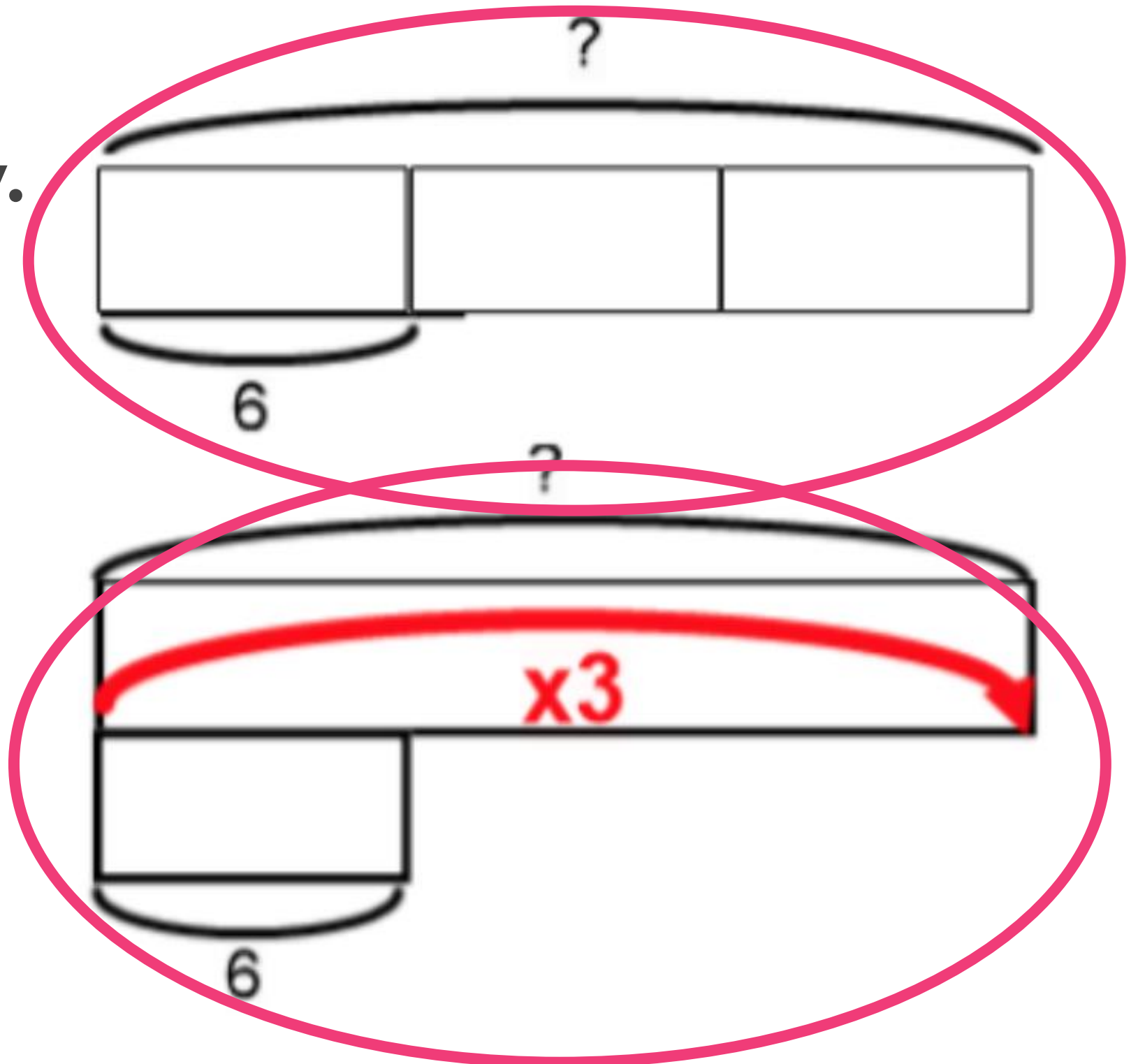


Part/whole or times greater/more

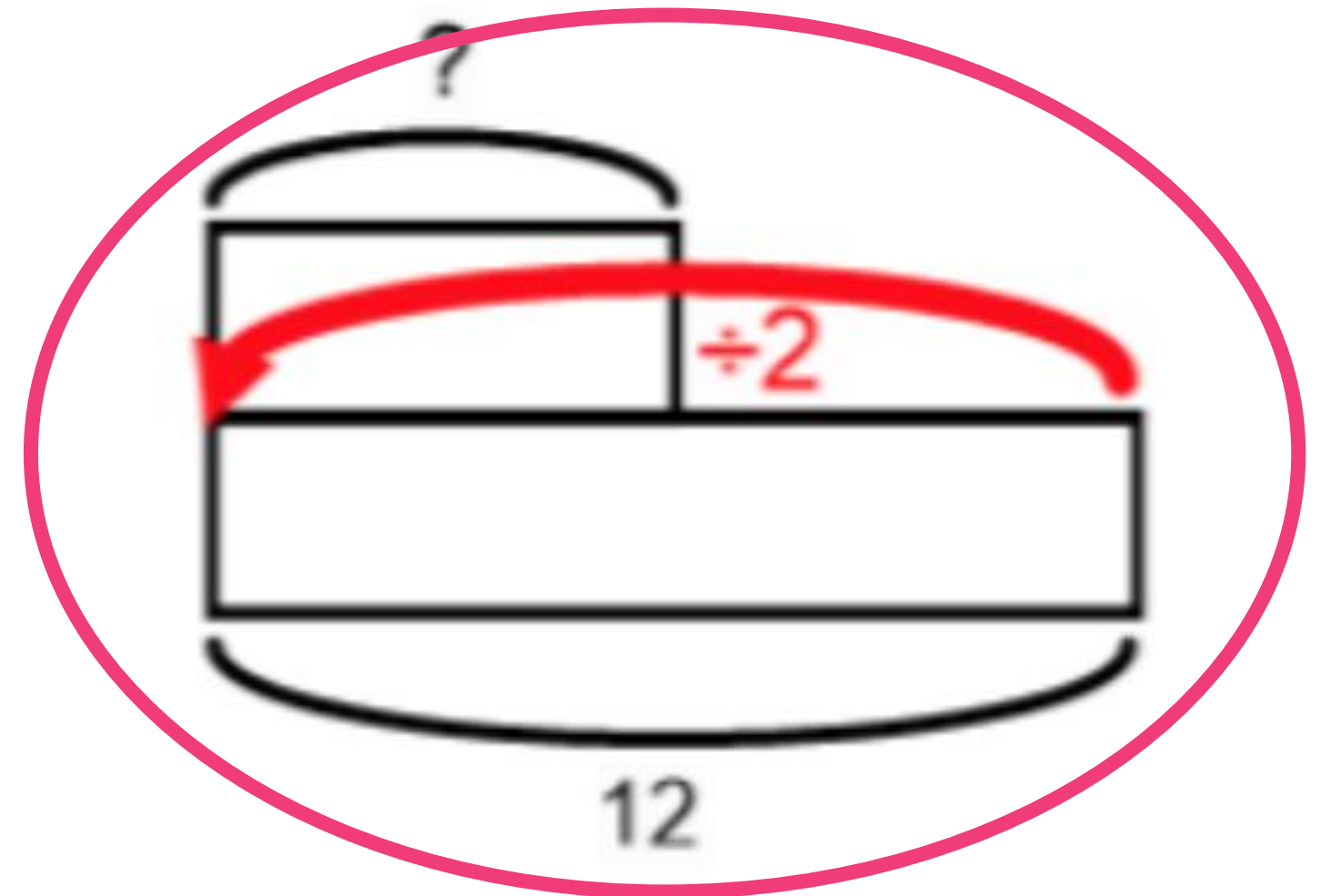
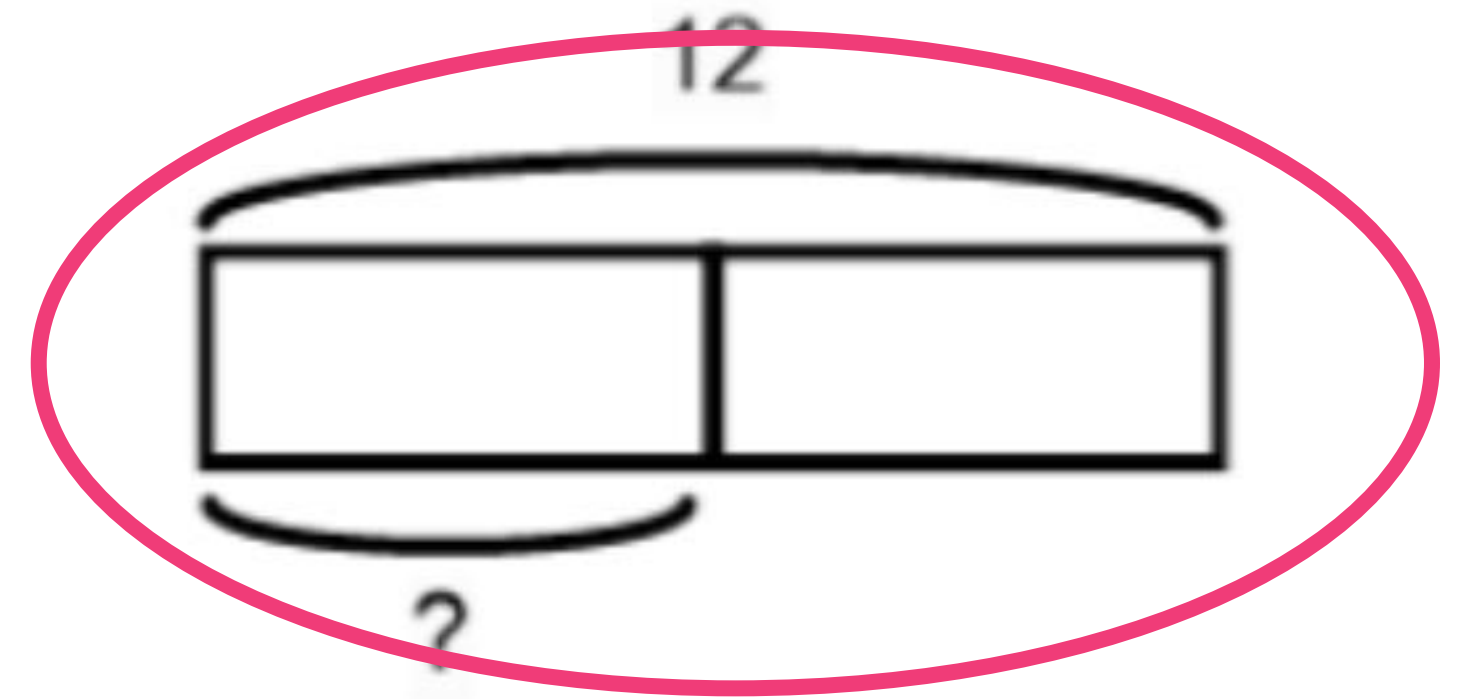
Maid Marion collects 6 gold coins.

Friar Tuck collected 3 times as many.

How many did Friar Tuck collect?

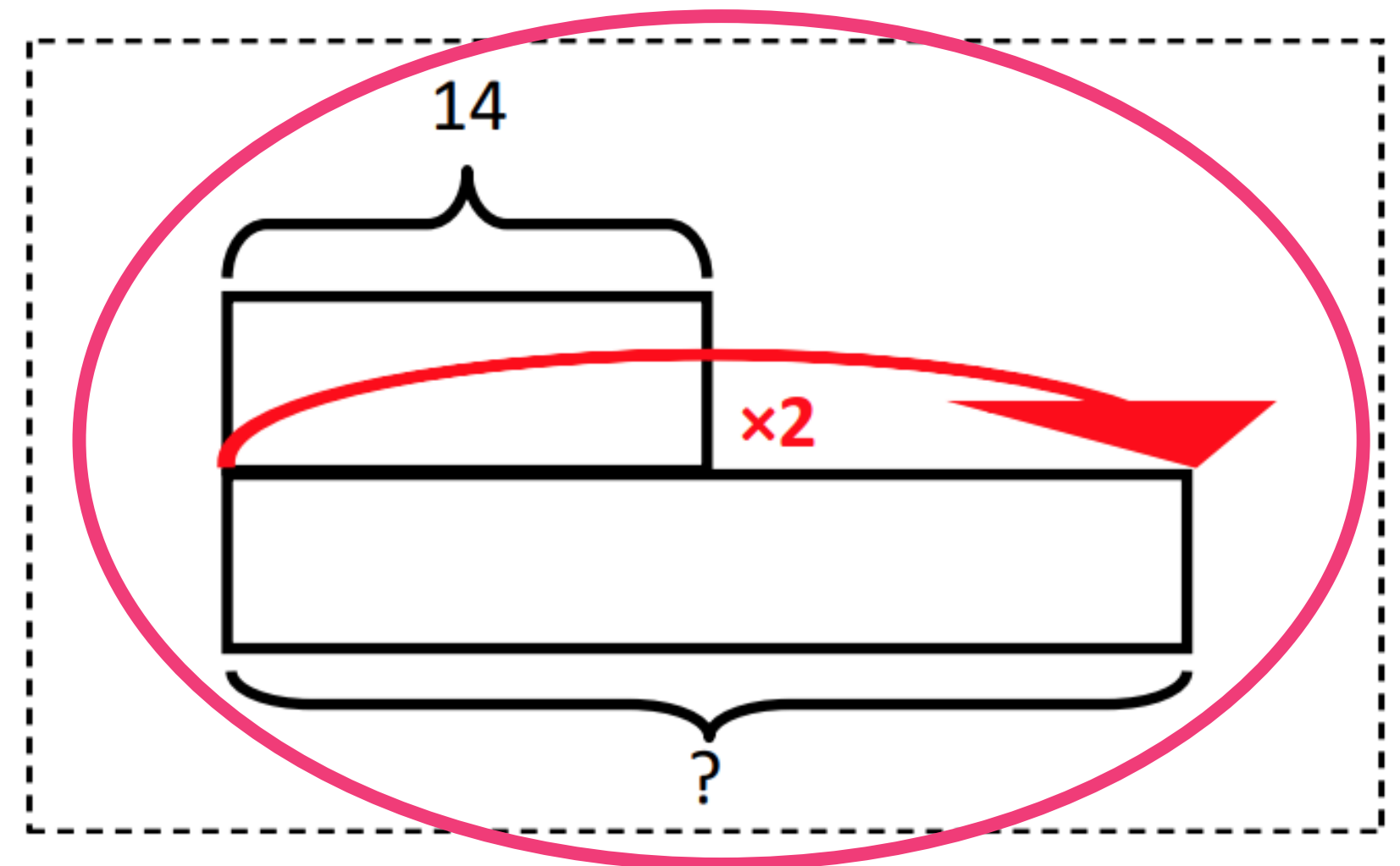
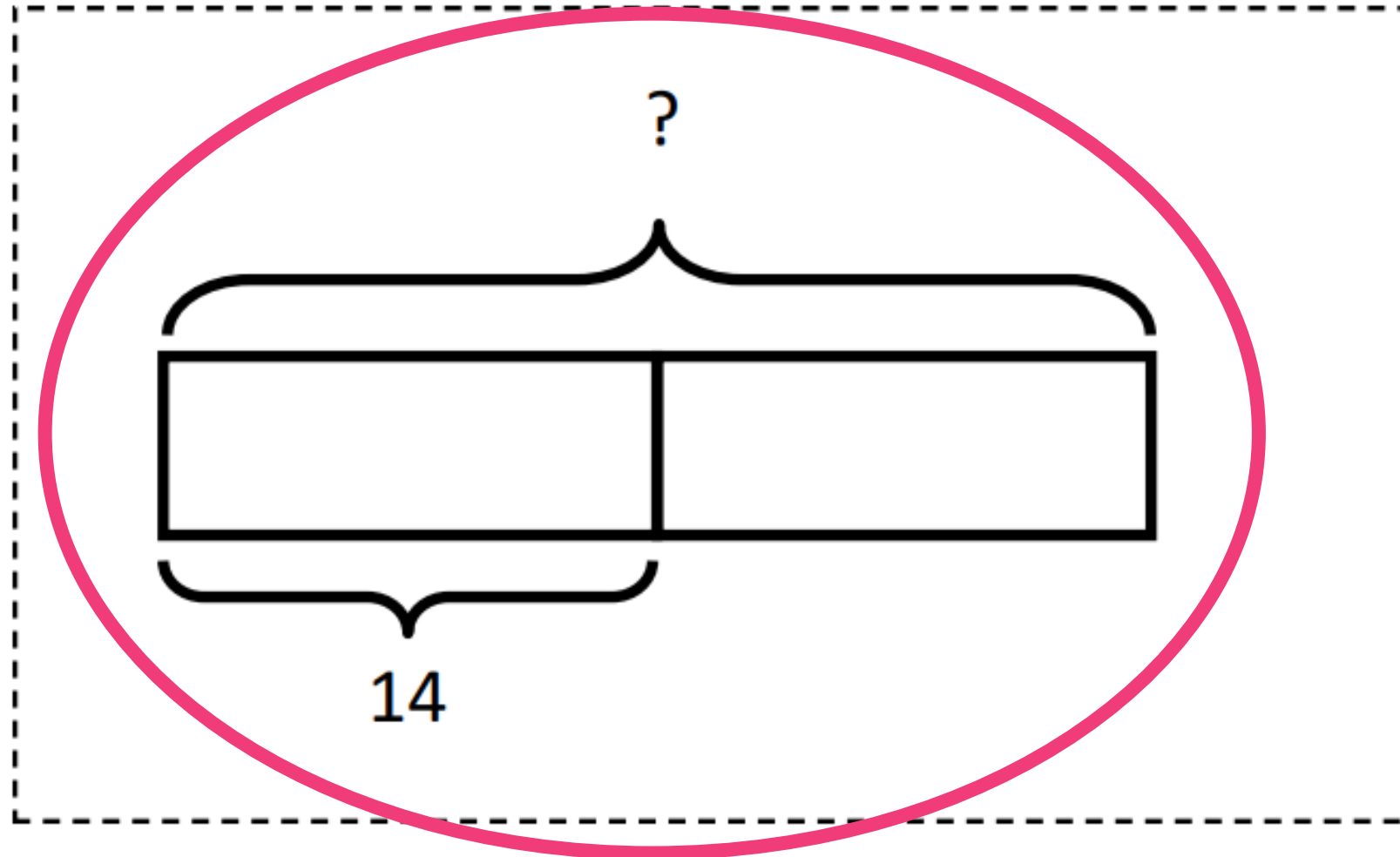


**Maid Marion climbed 12m up a tree.
Robin Hood only climbed half as high.
How far did Robin Hood climb?**



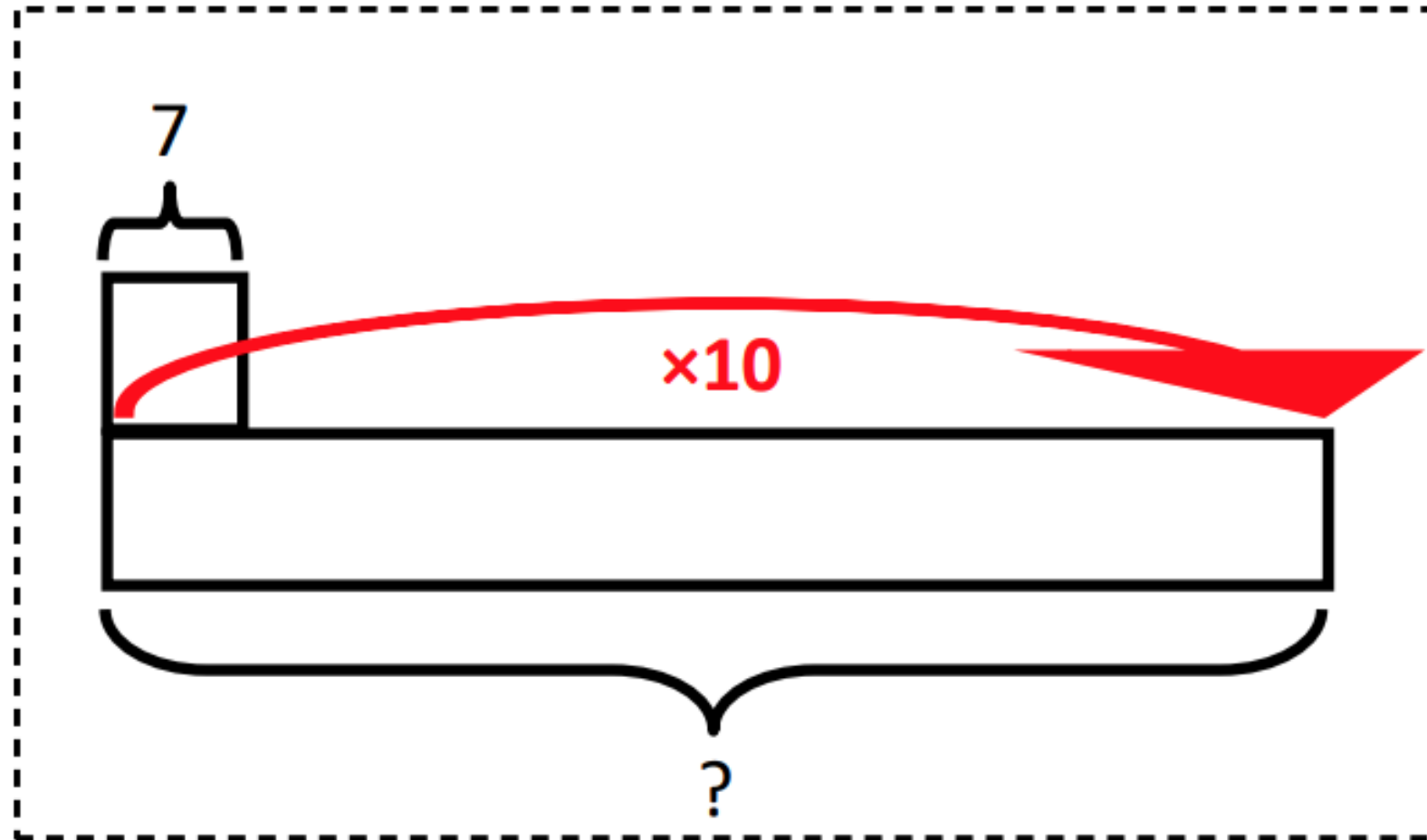
Which bar model is best suited to this question?

Robin Hood collected 14 coins 2 days in a row. How many did he collect in total?

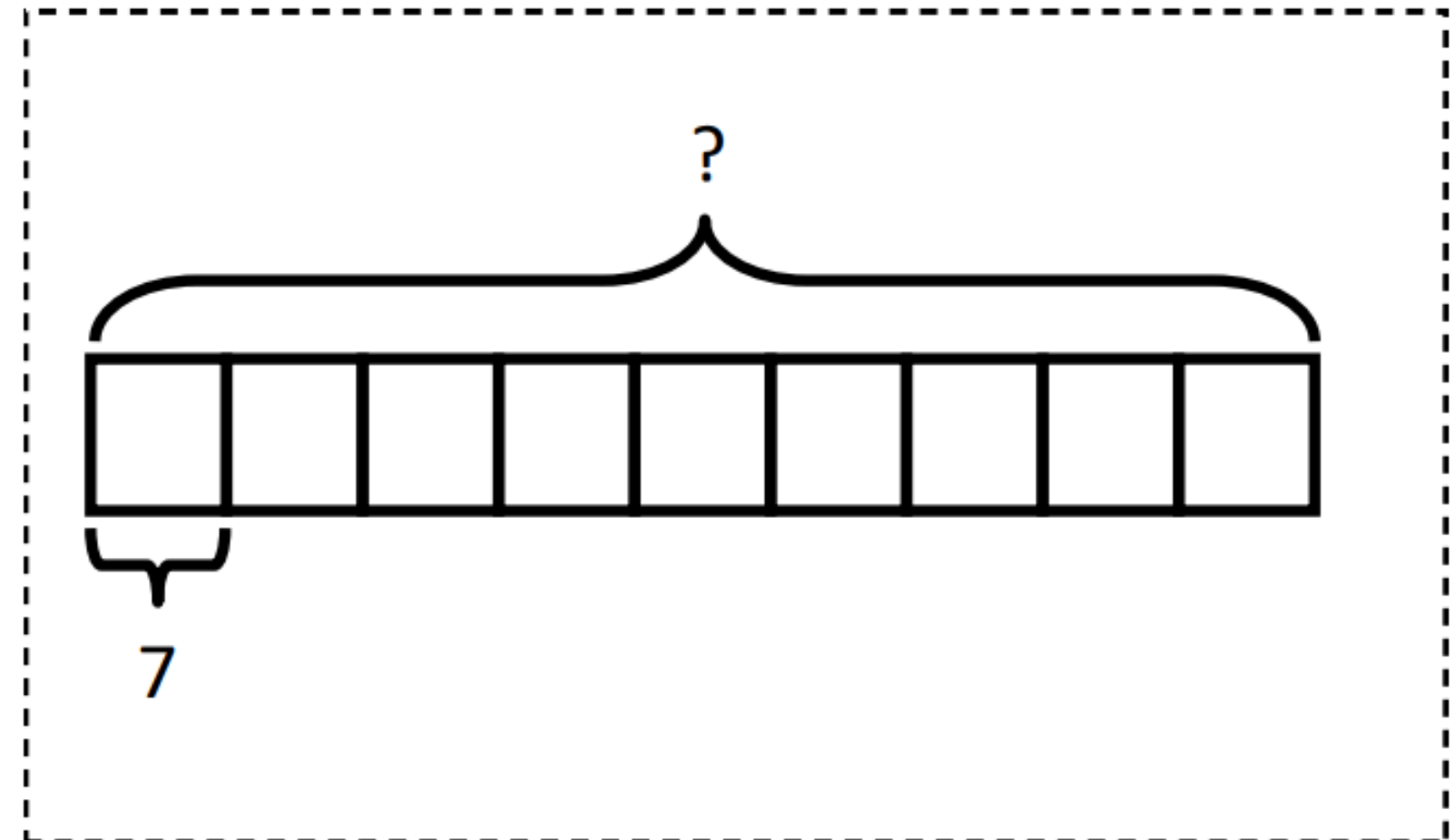


Bar models can show-

Parts and wholes

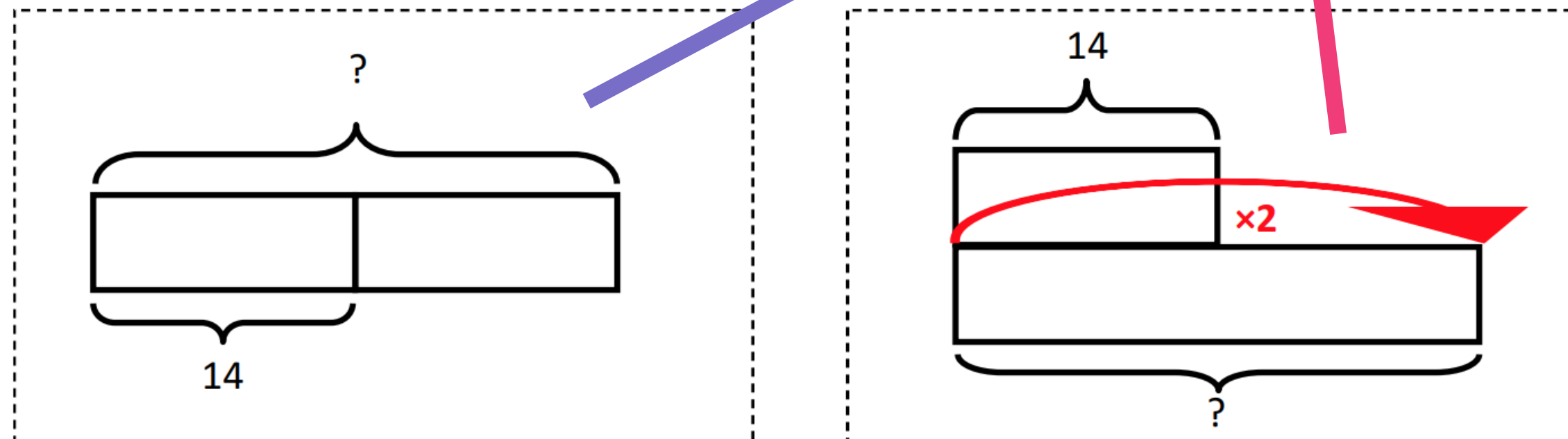
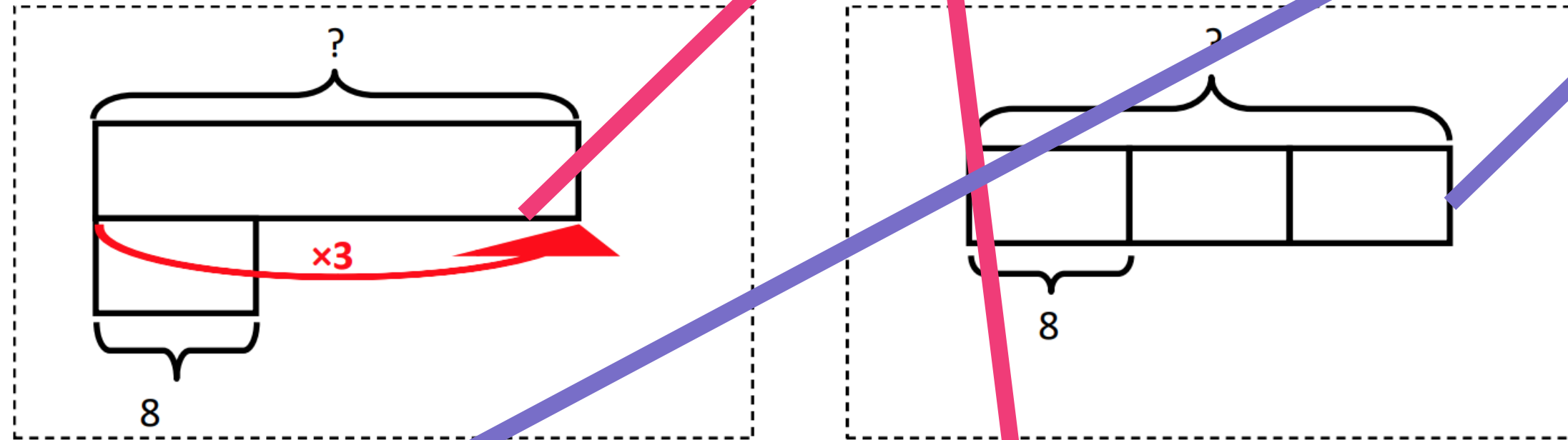


Times greater/more



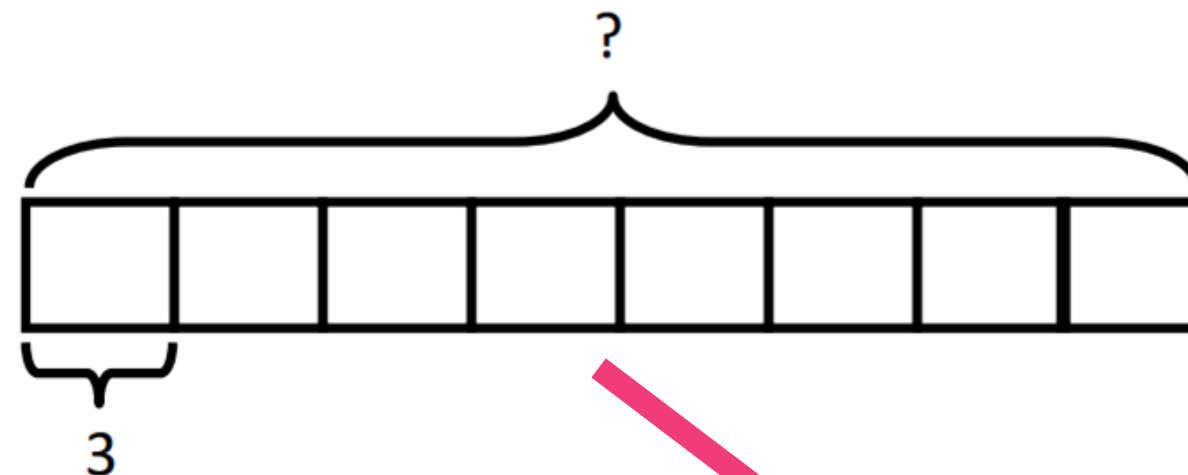
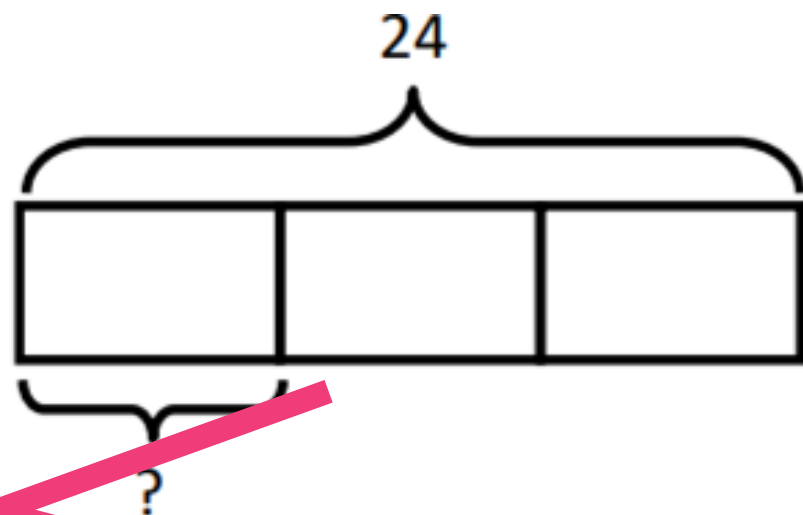
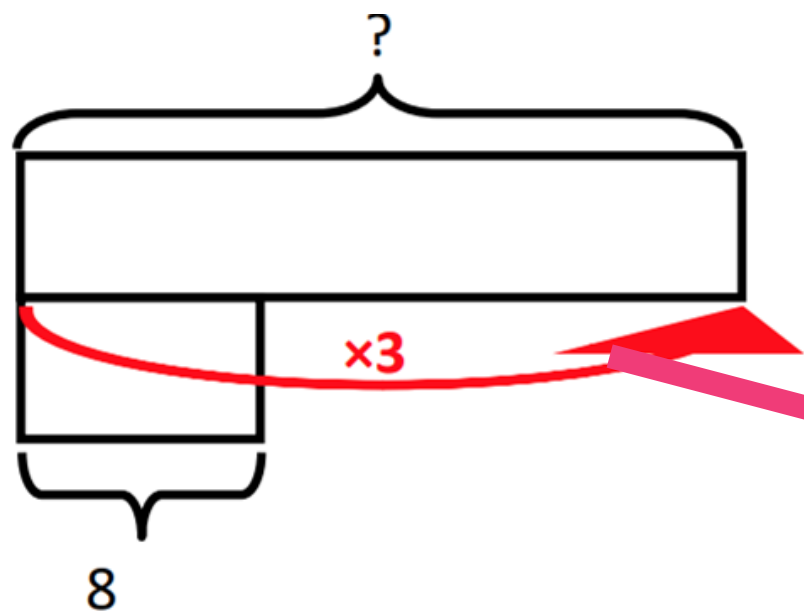
Part A

Do these bar models represent part/whole or times greater/more questions?



Part B

Match these word problems to the best bar models which would help answer them



Robin had a score of 24 in the archery competition. The sheriff's score was only one third as much. What was the sheriff's score?	For 3 days Friar Tuck collected 8 coins. How many coins did he collect in total?	The Sheriff fired 3 arrows in the time given. Robin Hood fired 8 times as many. How many did Robin Hood fire?
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