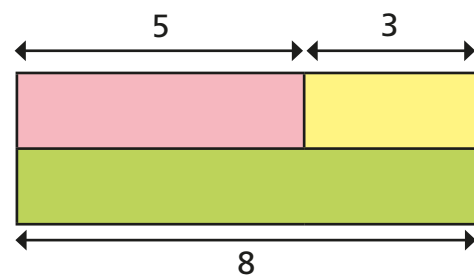


Understand and use fact families, numerically and algebraically

1 The bar model shows these facts:

$$5 + 3 = 8$$

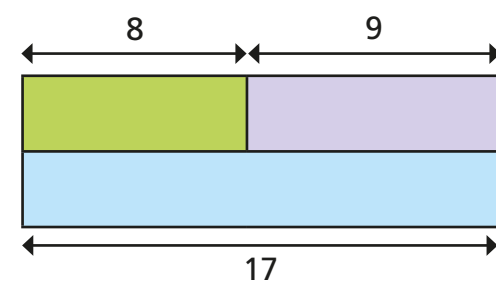
$$8 - 3 = 5$$



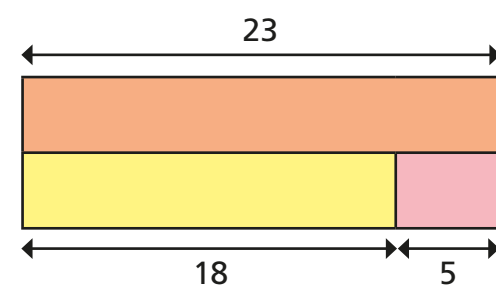
What other facts does it show?

2 Write the fact families for these bar models.

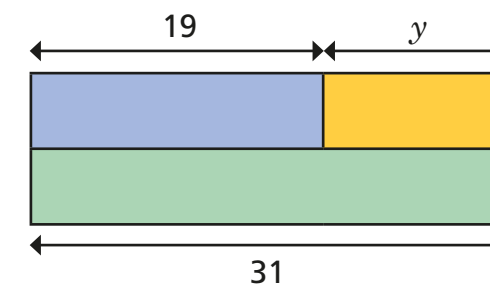
a)



b)



3 Annie is writing the fact family for this bar model.



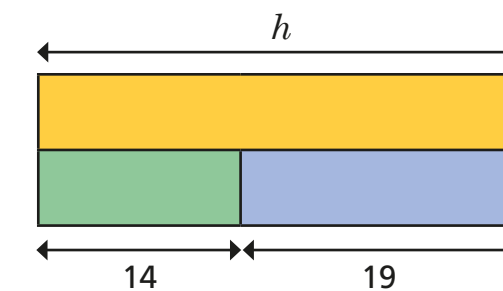
She writes $y = 19 + 31$

a) Explain why Annie is incorrect.

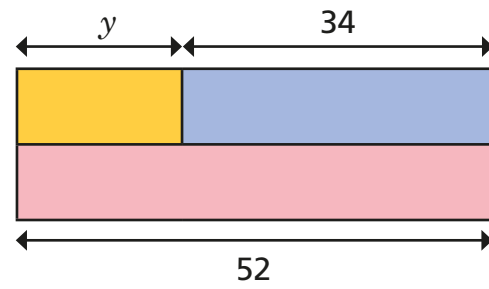
b) Write the fact family for this bar model.

4 Write the fact family for each bar model.

a)



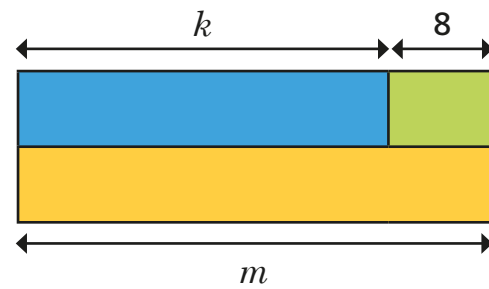
b)



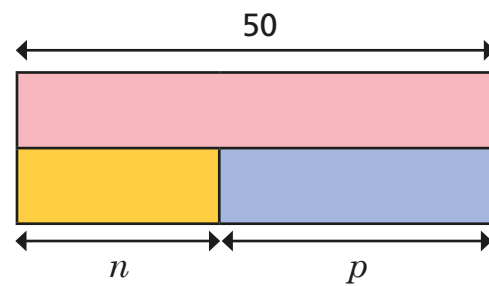
5

Write two addition facts and two subtraction facts for each bar model.

a)



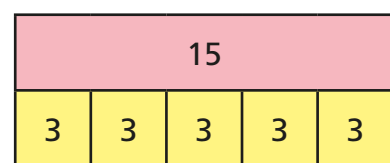
b)



6

Use the bar models to complete the facts.

a)



$$15 = 3 \times \square$$

$$15 = 5 \times \square$$

$$15 \div \square = \square$$

$$15 \div \square = \square$$

b)



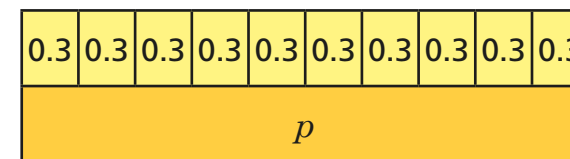
$$30 = \square \times \square$$

$$30 = \square \times \square$$

$$30 \div \square = \square$$

$$30 \div \square = \square$$

c)



$$\square \times \square = \square$$

$$\square \times \square = \square$$

$$\square \div \square = \square$$

$$\square \div \square = \square$$

7

Draw a bar model to represent each fact.

a)

$$51.6 = 82.3 - 30.7$$

c)

$$k = 23 \times 4$$

b)

$$g + 98 = 152$$

d)

$$\frac{108}{6} = w$$

What other related facts can you see from your bar models?

