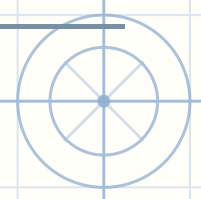


Sum & difference — Totals to 30

Name: _____

Date: _____



Find the two numbers. Show how you worked them out.

- 1 Ava and Ben have 26 stickers between them. Ava has 14 more than Ben.

How many does each of them have?

Why Half of 26 is 13, so 13 and 13 would add up right — but they are the same, and these two differ by 14. Move half the difference, 7, from one to the other: $13 + 7 = 20$ and $13 - 7 = 6$. More than one way works here. The other is to add the two facts: $26 + 14 = 40$, and half of that is the bigger number, 20 — then $26 - 20 = 6$. Same answer, one step fewer, and it is the road algebra takes later.

Ava 20, Ben 6

- 2 Two baskets hold 20 apples altogether. One basket has 2 more apples than the other.

How many apples are in each basket?

Why

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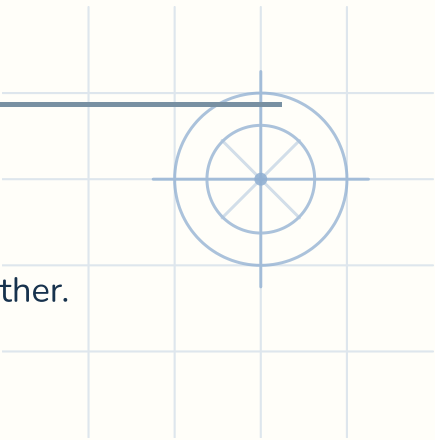


Sum & difference — Totals to 30

Name: _____

Date: _____

Find the two numbers. Show how you worked them out.



3 Two numbers add up to 20. One of them is 10 more than the other.

What are the two numbers?

Why

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4 A shelf holds 10 books on two rows. The top row has 4 more than the bottom row.

How many books are on each row?

Why

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.....

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Sum & difference · Totals to 30 — Answer key

If they are stuck

- What would the two numbers be if they were the SAME? Start there, then ask what has to change.

1. Half of 26 is 13, so 13 and 13 would add up right — but they are the same, and these two differ by 14. Move half the difference, 7, from one to the other: $13 + 7 = 20$ and $13 - 7 = 6$. More than one way works here. The other is to add the two facts: $26 + 14 = 40$, and half of that is the bigger number, 20 — then $26 - 20 = 6$. Same answer, one step fewer, and it is the road algebra takes later.

3. Half of 20 is 10, so 10 and 10 would add up right — but they are the same, and these two differ by 10. Move half the difference, 5, from one to the other: $10 + 5 = 15$ and $10 - 5 = 5$. More than one way works here. The other is to add the two facts: $20 + 10 = 30$, and half of that is the bigger number, 15 — then $20 - 15 = 5$. Same answer, one step fewer, and it is the road algebra takes later.

2. Half of 20 is 10, so 10 and 10 would add up right — but they are the same, and these two differ by 2. Move half the difference, 1, from one to the other: $10 + 1 = 11$ and $10 - 1 = 9$. More than one way works here. The other is to add the two facts: $20 + 2 = 22$, and half of that is the bigger number, 11 — then $20 - 11 = 9$. Same answer, one step fewer, and it is the road algebra takes later.

4. Half of 10 is 5, so 5 and 5 would add up right — but they are the same, and these two differ by 4. Move half the difference, 2, from one to the other: $5 + 2 = 7$ and $5 - 2 = 3$. More than one way works here. The other is to add the two facts: $10 + 4 = 14$, and half of that is the bigger number, 7 — then $10 - 7 = 3$. Same answer, one step fewer, and it is the road algebra takes later.