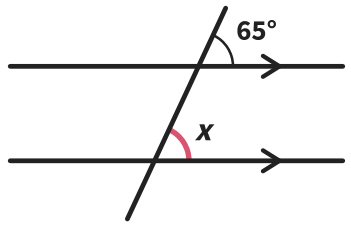
Angles on parallel lines

ANSWERS

1

Find the size of angle *x*. Give a reason.

Not drawn accurately.



x = 65 °

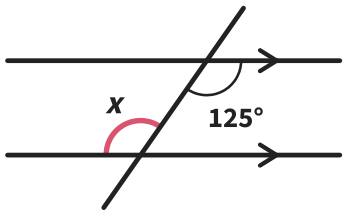
corresponding angles are equal

corresponding · alternate · co-interior · vertically opposite · straight line

2

Find the size of angle *x*. Give a reason.

Not drawn accurately.



x = 125 °

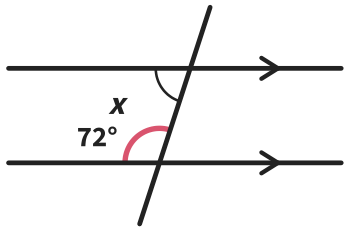
alternate angles are equal

corresponding · alternate · co-interior · vertically opposite · straight line

3

Find the size of angle *x*. Give a reason.

Not drawn accurately.



x = 180 − 72 = 108 °

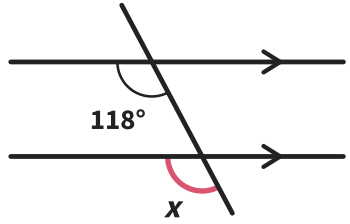
co-interior angles add up to 180°

corresponding · alternate · co-interior · vertically opposite · straight line

4

Find the size of angle *x*. Give a reason.

Not drawn accurately.



x = 118 °

Reason

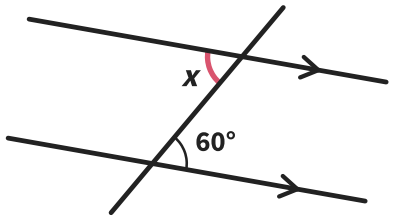
Corresponding angles are equal

corresponding · alternate · co-interior · vertically opposite · straight line

5

Find the size of angle *x*. Give a reason.

Not drawn accurately.



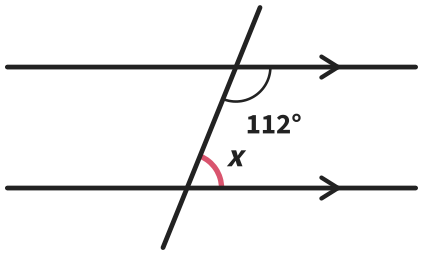
x = 60°

Reason

Alternate angles are equal

6

Mia says $x = 112°$ because co-interior angles are equal. Explain her mistake. Find *x*.



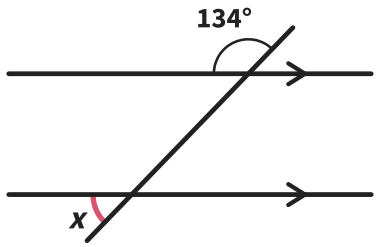
They are not equal.

They add up to 180°.

x = 180 − 112 = 68°

7

Find the size of angle *x*. Give a reason for each step. Not drawn accurately.



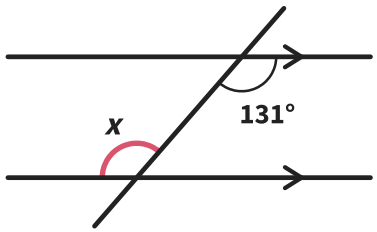
134° (corresponding angles are equal)

180 − 134 = 46 (straight line)

x = 46°

8

Two parallel shelves are joined by a straight strut. Find *x*. Give a reason.



x = 131°

Reason

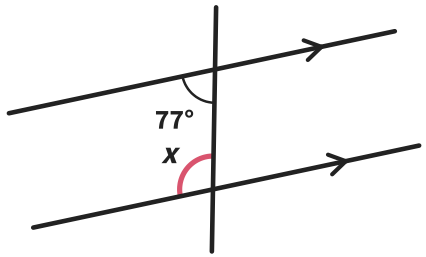
Alternate angles are equal

Angles on parallel lines *further practice*

ANSWERS

9

Find the size of angle x. Give a reason.
Not drawn accurately.

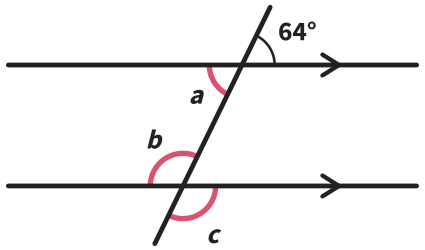


$x =$ 103°

Reason
Co-interior angles add up to 180°

10

Find the sizes of angles a, b and c. Give a reason for each.
Not drawn accurately.



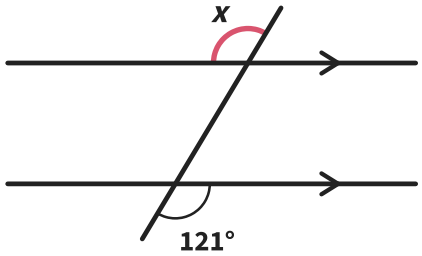
$a = 64°$ (vertically opposite)

$b = 180 - 64 = 116°$ (co-interior)

$c = 116°$ (vertically opposite)

11

Find the size of angle x. Give a reason for each step. Not drawn accurately.



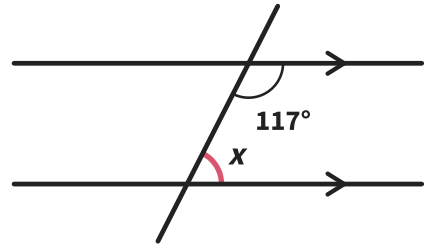
121° (vertically opposite)

121° (corresponding)

$x =$ 121°

12

A footbridge has two parallel railings and a straight diagonal bar. Find x. Give a reason.

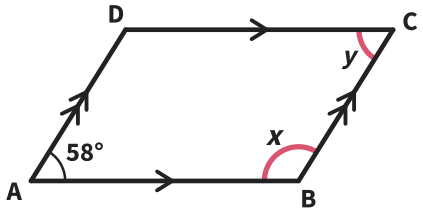


$x =$ 63°

Reason
Co-interior angles add up to 180°

13

ABCD is a parallelogram. Find angles x and y. Give your reasons.
Not drawn accurately.

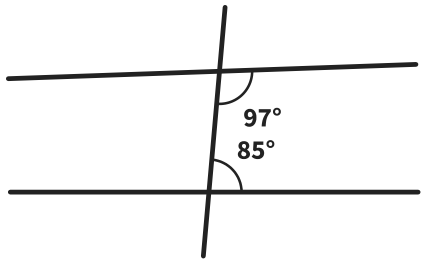


$x = 180 - 58 = 122°$ (co-interior)

$y = 180 - 122 = 58°$ (co-interior)

14

Are these two lines parallel? Explain how you know. Not drawn accurately.



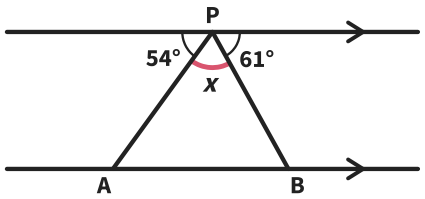
$97 + 85 = 182°$, not $180°$.

Co-interior angles add to 180°.

Answer No

15

P is on one line. A and B are on the other. The lines are parallel. Find x.
Not drawn accurately.



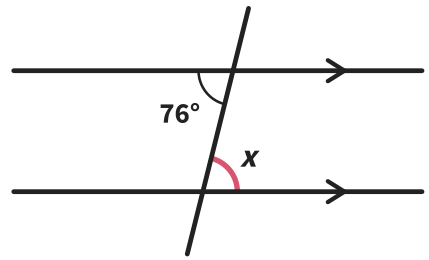
$54 + 61 = 115$

$180 - 115 = 65$ (straight line)

$x =$ 65°

16

Jay finds x and writes the reason "Z angles". Find x, and write the reason the way an examiner wants.



$x =$ 76°

Reason
Alternate angles are equal