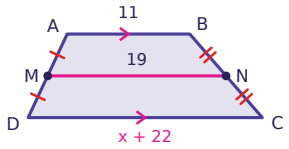
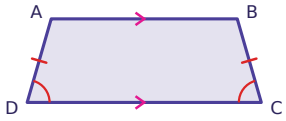
Trapezoids: Midsegments, Angles & Diagonals · 1

MN is the midsegment of trapezoid ABCD. AB = 11, DC = x + 22 and MN = 19. Find x.



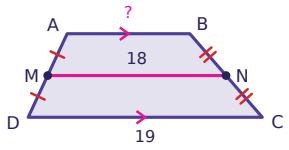
Trapezoids: Midsegments, Angles & Diagonals · 2

ABCD is an isosceles trapezoid with AD = BC. m∠D = (9x + 47)° and m∠C = (x + 71)°. Find x.



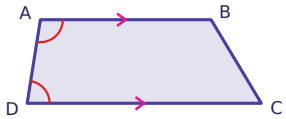
Trapezoids: Midsegments, Angles & Diagonals · 3

MN is the midsegment of trapezoid ABCD. MN = 18 and DC = 19. Find AB.



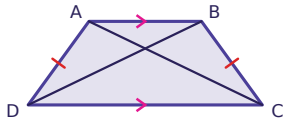
Trapezoids: Midsegments, Angles & Diagonals · 4

In trapezoid ABCD, AB ∥ DC. m∠D = (5x + 41)° and m∠A = (7x + 43)°. Find x.



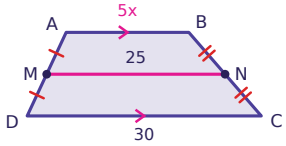
Trapezoids: Midsegments, Angles & Diagonals · 5

ABCD is an isosceles trapezoid with AD = BC. AC = 5x + 23 and BD = 2x + 32. Find x.



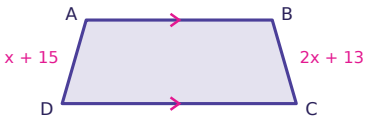
Trapezoids: Midsegments, Angles & Diagonals · 6

MN is the midsegment of trapezoid ABCD. AB = 5x, DC = 30 and MN = 25. Find x.



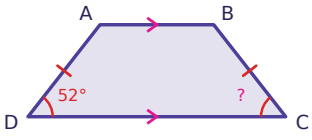
Trapezoids: Midsegments, Angles & Diagonals · 7

ABCD is an isosceles trapezoid with AD = BC. AD = x + 15 and BC = 2x + 13. Find x.



Trapezoids: Midsegments, Angles & Diagonals · 8

ABCD is an isosceles trapezoid with AD = BC. m∠D = 52°. Find m∠C.



Trapezoids: Midsegments, Angles & Diagonals · 2

ANSWER

3

Trapezoids: Midsegments, Angles & Diagonals · 1

ANSWER

5

Trapezoids: Midsegments, Angles & Diagonals · 4

ANSWER

8

Trapezoids: Midsegments, Angles & Diagonals · 3

ANSWER

17

Trapezoids: Midsegments, Angles & Diagonals · 6

ANSWER

4

Trapezoids: Midsegments, Angles & Diagonals · 5

ANSWER

3

Trapezoids: Midsegments, Angles & Diagonals · 8

ANSWER

52°

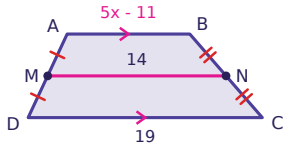
Trapezoids: Midsegments, Angles & Diagonals · 7

ANSWER

2

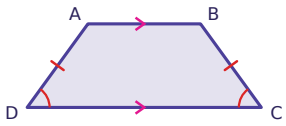
Trapezoids: Midsegments, Angles & Diagonals · 9

MN is the midsegment of trapezoid ABCD. AB = 5x - 11, DC = 19 and MN = 14. Find x.



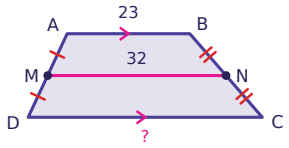
Trapezoids: Midsegments, Angles & Diagonals · 10

ABCD is an isosceles trapezoid with AD = BC. m∠D = (6x + 42)° and m∠C = (7x + 40)°. Find x.



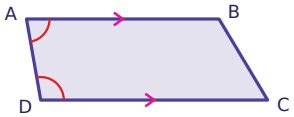
Trapezoids: Midsegments, Angles & Diagonals · 11

MN is the midsegment of trapezoid ABCD. MN = 32 and AB = 23. Find DC.



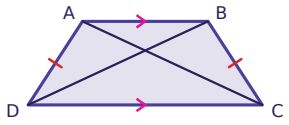
Trapezoids: Midsegments, Angles & Diagonals · 12

In trapezoid ABCD, AB ∥ DC. m∠D = (14x + 44)° and m∠A = (2x + 72)°. Find x.



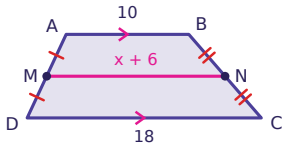
Trapezoids: Midsegments, Angles & Diagonals · 13

ABCD is an isosceles trapezoid with AD = BC. AC = x + 36 and BD = 2x + 28. Find x.



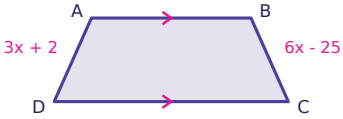
Trapezoids: Midsegments, Angles & Diagonals · 14

MN is the midsegment of trapezoid ABCD. AB = 10, DC = 18 and MN = x + 6. Find x.



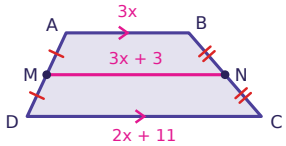
Trapezoids: Midsegments, Angles & Diagonals · 15

ABCD is an isosceles trapezoid with AD = BC. AD = 3x + 2 and BC = 6x - 25. Find x.



Trapezoids: Midsegments, Angles & Diagonals · 16

MN is the midsegment of trapezoid ABCD. AB = 3x, DC = 2x + 11 and MN = 3x + 3. Find x.



Trapezoids: Midsegments, Angles & Diagonals · 10

ANSWER

2

Trapezoids: Midsegments, Angles & Diagonals · 9

ANSWER

4

Trapezoids: Midsegments, Angles & Diagonals · 12

ANSWER

4

Trapezoids: Midsegments, Angles & Diagonals · 11

ANSWER

41

Trapezoids: Midsegments, Angles & Diagonals · 14

ANSWER

8

Trapezoids: Midsegments, Angles & Diagonals · 13

ANSWER

8

Trapezoids: Midsegments, Angles & Diagonals · 16

ANSWER

5

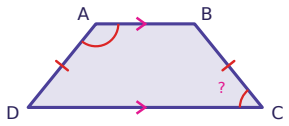
Trapezoids: Midsegments, Angles & Diagonals · 15

ANSWER

9

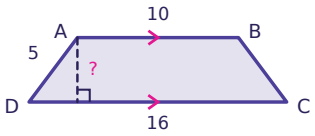
Trapezoids: Midsegments, Angles & Diagonals · 17

ABCD is an isosceles trapezoid with AD = BC. m∠A = (7x + 66)° and m∠C = (5x + 6)°. Find m∠C.



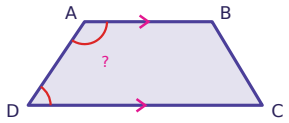
Trapezoids: Midsegments, Angles & Diagonals · 18

ABCD is an isosceles trapezoid with AD = BC. AB = 10 and DC = 16. AD = 5. Find the height of the trapezoid.



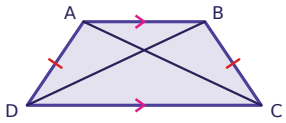
Trapezoids: Midsegments, Angles & Diagonals · 19

In trapezoid ABCD, AB ∥ DC. m∠D = (6x + 2)° and m∠A = (13x + 7)°. Find m∠A.



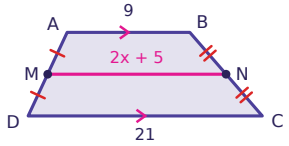
Trapezoids: Midsegments, Angles & Diagonals · 20

ABCD is an isosceles trapezoid with AD = BC. AC = x + 3 and BD = 5x - 25. Find AC.



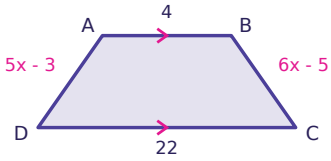
Trapezoids: Midsegments, Angles & Diagonals · 21

MN is the midsegment of trapezoid ABCD. AB = 9, DC = 21 and MN = 2x + 5. Find x.



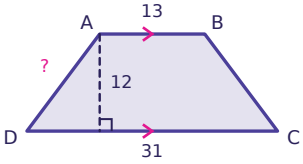
Trapezoids: Midsegments, Angles & Diagonals · 22

ABCD is an isosceles trapezoid with AD = BC. AD = 5x - 3, BC = 6x - 5, AB = 4 and DC = 22. Find the perimeter of ABCD.



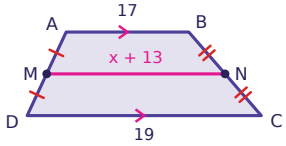
Trapezoids: Midsegments, Angles & Diagonals · 23

ABCD is an isosceles trapezoid with AD = BC. AB = 13 and DC = 31. The height of the trapezoid is 12. Find AD.



Trapezoids: Midsegments, Angles & Diagonals · 24

MN is the midsegment of trapezoid ABCD. AB = 17, DC = 19 and MN = x + 13. Find x.



Trapezoids: Midsegments, Angles & Diagonals · 18

ANSWER

4

Trapezoids: Midsegments, Angles & Diagonals · 17

ANSWER

51°

Trapezoids: Midsegments, Angles & Diagonals · 20

ANSWER

10

Trapezoids: Midsegments, Angles & Diagonals · 19

ANSWER

124°

Trapezoids: Midsegments, Angles & Diagonals · 22

ANSWER

40

Trapezoids: Midsegments, Angles & Diagonals · 21

ANSWER

5

Trapezoids: Midsegments, Angles & Diagonals · 24

ANSWER

5

Trapezoids: Midsegments, Angles & Diagonals · 23

ANSWER

15