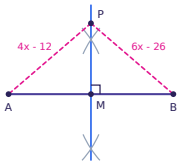
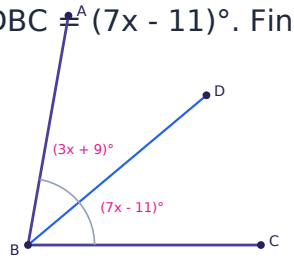
Constructions: Bisectors, Copies & Inscribed Polygons · 1

P is on the perpendicular bisector of AB. PA = 4x - 12 and PB = 6x - 26. Find x.



Constructions: Bisectors, Copies & Inscribed Polygons · 2

BD bisects ∠ABC. m∠ABD = (3x + 9)° and m∠DBC = (7x - 11)°. Find x.

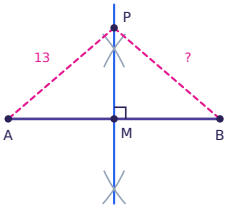


Constructions: Bisectors, Copies & Inscribed Polygons · 3

To construct the perpendicular bisector of AB = 24 cm, the compass must be opened to more than half of AB. What is the smallest whole number of centimeters that works?

Constructions: Bisectors, Copies & Inscribed Polygons · 4

P is on the perpendicular bisector of AB. PA = 13. Find PB.

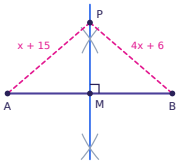


Constructions: Bisectors, Copies & Inscribed Polygons · 5

An angle of 41° is copied 2 times, each copy placed next to the last so they share a side, starting from a side of the original angle. What is the measure of the large angle made by the original and its copies together?

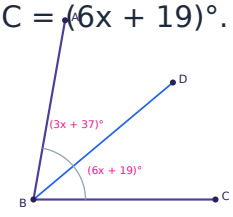
Constructions: Bisectors, Copies & Inscribed Polygons · 6

P is on the perpendicular bisector of AB. PA = x + 15 and PB = 4x + 6. Find x.



Constructions: Bisectors, Copies & Inscribed Polygons · 7

BD bisects ∠ABC. m∠ABD = (3x + 37)° and m∠DBC = (6x + 19)°. Find x.



Constructions: Bisectors, Copies & Inscribed Polygons · 8

Which construction do these steps make? Draw a ray starting at point C. Open the compass to the length of AB. Put the compass point on C and draw an arc that crosses the ray at D. A) an equilateral triangle B) the bisector of an angle C) a copy of a segment D) the perpendicular bisector of a segment

Constructions: Bisectors, Copies & Inscribed Polygons · 2

ANSWER

5

Constructions: Bisectors, Copies & Inscribed Polygons · 1

ANSWER

7

Constructions: Bisectors, Copies & Inscribed Polygons · 4

ANSWER

13

Constructions: Bisectors, Copies & Inscribed Polygons · 3

ANSWER

13

Constructions: Bisectors, Copies & Inscribed Polygons · 6

ANSWER

3

Constructions: Bisectors, Copies & Inscribed Polygons · 5

ANSWER

123

Constructions: Bisectors, Copies & Inscribed Polygons · 8

ANSWER

C

Constructions: Bisectors, Copies & Inscribed Polygons · 7

ANSWER

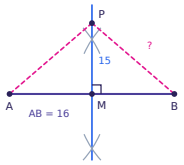
6

Constructions: Bisectors, Copies & Inscribed Polygons · 9

To construct the perpendicular bisector of AB = 19 cm, the compass must be opened to more than half of AB. What is the smallest whole number of centimeters that works?

Constructions: Bisectors, Copies & Inscribed Polygons · 10

P is on the perpendicular bisector of AB, which meets AB at M. AB = 16, PM = 15. Find PB.

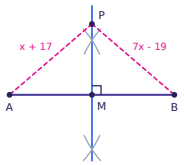


Constructions: Bisectors, Copies & Inscribed Polygons · 11

An angle of 28° is copied 3 times, each copy placed next to the last so they share a side, starting from a side of the original angle. What is the measure of the large angle made by the original and its copies together?

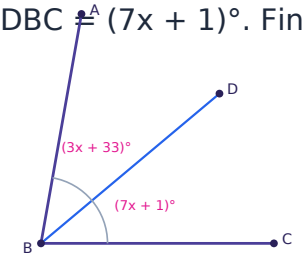
Constructions: Bisectors, Copies & Inscribed Polygons · 12

P is on the perpendicular bisector of AB. PA = x + 17 and PB = 7x - 19. Find x.



Constructions: Bisectors, Copies & Inscribed Polygons · 13

BD bisects ∠ABC. m∠ABD = (3x + 33)° and m∠DBC = (7x + 1)°. Find x.



Constructions: Bisectors, Copies & Inscribed Polygons · 14

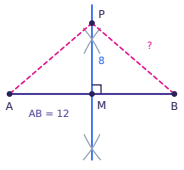
Which construction do these steps make? Draw a ray starting at point C. Open the compass to the length of AB. Put the compass point on C and draw an arc that crosses the ray at D. A) the perpendicular bisector of a segment B) a copy of a segment C) an equilateral triangle D) a copy of an angle

Constructions: Bisectors, Copies & Inscribed Polygons · 15

To construct the perpendicular bisector of AB = 29 cm, the compass must be opened to more than half of AB. What is the smallest whole number of centimeters that works?

Constructions: Bisectors, Copies & Inscribed Polygons · 16

P is on the perpendicular bisector of AB, which meets AB at M. AB = 12, PM = 8. Find PB.



Constructions: Bisectors, Copies & Inscribed Polygons · 10

ANSWER

17

Constructions: Bisectors, Copies & Inscribed Polygons · 9

ANSWER

10

Constructions: Bisectors, Copies & Inscribed Polygons · 12

ANSWER

6

Constructions: Bisectors, Copies & Inscribed Polygons · 11

ANSWER

112

Constructions: Bisectors, Copies & Inscribed Polygons · 14

ANSWER

B

Constructions: Bisectors, Copies & Inscribed Polygons · 13

ANSWER

8

Constructions: Bisectors, Copies & Inscribed Polygons · 16

ANSWER

10

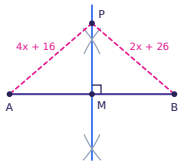
Constructions: Bisectors, Copies & Inscribed Polygons · 15

ANSWER

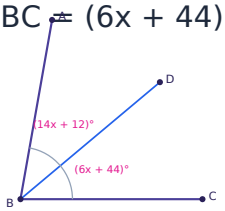
15

An angle of 44° is copied 2 times, each copy placed next to the last so they share a side, starting from a side of the original angle. What is the measure of the large angle made by the original and its copies together?

P is on the perpendicular bisector of AB. PA = 4x + 16 and PB = 2x + 26. Find x.



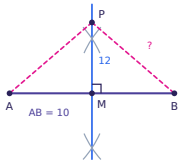
BD bisects ∠ABC. m∠ABD = (14x + 12)° and m∠DBC = (6x + 44)°. Find x.



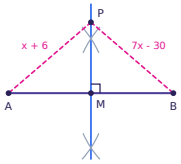
Which construction do these steps make? Set the compass to the length of AB. Draw an arc with the point on A, then an arc with the point on B, using the same width. Connect A and B to the point where the two arcs cross. A) a copy of a segment B) the bisector of an angle C) a copy of an angle D) an equilateral triangle

To construct the perpendicular bisector of AB = 16 cm, the compass must be opened to more than half of AB. What is the smallest whole number of centimeters that works?

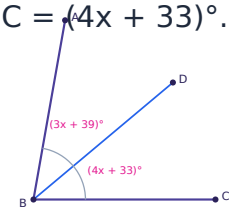
P is on the perpendicular bisector of AB, which meets AB at M. AB = 10, PM = 12. Find PB.



P is on the perpendicular bisector of AB. PA = x + 6 and PB = 7x - 30. Find x.



BD bisects ∠ABC. m∠ABD = (3x + 39)° and m∠DBC = (4x + 33)°. Find x.



Constructions: Bisectors, Copies & Inscribed Polygons · 18

ANSWER

5

Constructions: Bisectors, Copies & Inscribed Polygons · 17

ANSWER

132

Constructions: Bisectors, Copies & Inscribed Polygons · 20

ANSWER

D

Constructions: Bisectors, Copies & Inscribed Polygons · 19

ANSWER

4

Constructions: Bisectors, Copies & Inscribed Polygons · 22

ANSWER

13

Constructions: Bisectors, Copies & Inscribed Polygons · 21

ANSWER

9

Constructions: Bisectors, Copies & Inscribed Polygons · 24

ANSWER

6

Constructions: Bisectors, Copies & Inscribed Polygons · 23

ANSWER

6