

Constructions Station

1. The point where the medians of a triangle intersect is called the _____.

- a. Orthocenter b. Centroid c. Circumcenter d. Incenter

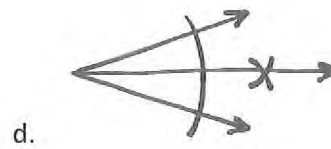
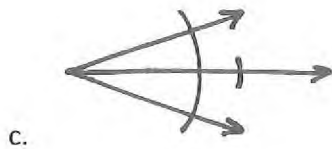
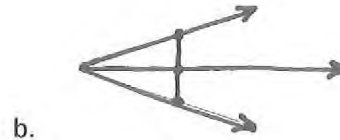
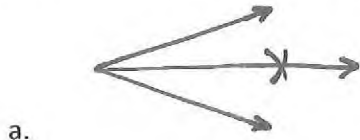
2. When constructing the bisector of a line segment, you are also constructing the perpendicular bisector of the segment.

- a. True b. False

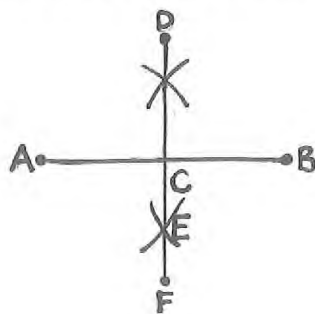
3. When constructing a line parallel to a given line, you will be...

- a. copying a segment b. bisecting a segment
c. copying an angle d. constructing a perpendicular line

4. Which diagram below shows a correct mathematical construction using only a compass and a straightedge to bisect an angle?

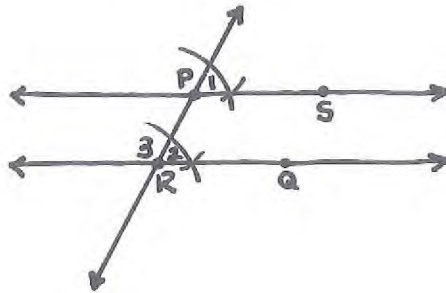


5. Which construction is shown in the diagram?



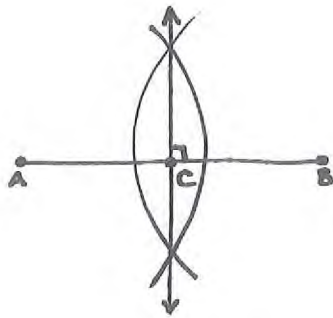
- a. the bisector of $\angle ACD$
b. the midpoint of DF
c. the perpendicular bisector of AB
d. a perpendicular line to AB from point D

6. The diagram illustrates the construction of PS parallel to RQ through point P. Which statement justifies this construction?



- a. $m\angle 1 = m\angle 2$
- b. $m\angle 1 = m\angle 3$
- c. PR is congruent to RQ
- d. PS is congruent to RQ

7. The diagram at the right shows the construction of the perpendicular bisector of AB. Which statement is not true?



- a. $AC = CB$
- b. $CB = \frac{1}{2}(AB)$
- c. $AC = 2(AB)$
- d. $AC + CB = AB$

8. When copying a line segment, what is the first step?
- a. Draw an arc on the original segment
 - b. measure the length of the ray using the compass
 - c. Draw a ray that is longer than the segment
 - d. Use a ruler to measure the length of the segment
9. Which of the following is not a step involved in the inscribing a regular hexagon in a circle construction?
- a. Use the compass to measure the radius of the circle.
 - b. Draw a point where each arc intersects the circle.
 - c. Draw a point anywhere on the circle.
 - d. Draw the diameter of the circle.
10. When constructing a square inscribed in a circle, what step is taken after drawing the diameter of the circle?
- a. Measure the length of the diameter, using the compass.
 - b. Construct the perpendicular bisector of the diameter.
 - c. Draw another diameter.
 - d. There is no other step; the construction is complete.

Construction S Station Answers

- 1) B
- 2) A
- 3) C
- 4) D
- 5) C
- 6) A
- 7) C
- 8) C
- 9) D
- 10) B

Construction S Station Answers

- 1) B
- 2) A
- 3) C
- 4) D
- 5) C
- 6) A
- 7) C
- 8) C
- 9) D
- 10) B

Construction S Station Answers

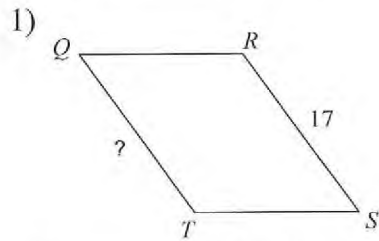
- 1) B
- 2) A
- 3) C
- 4) D
- 5) C
- 6) A
- 7) C
- 8) C
- 9) D
- 10) B

Construction S Station Answers

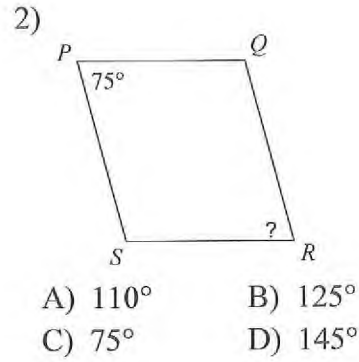
- 1) B
- 2) A
- 3) C
- 4) D
- 5) C
- 6) A
- 7) C
- 8) C
- 9) D
- 10) B

Parallelograms Station

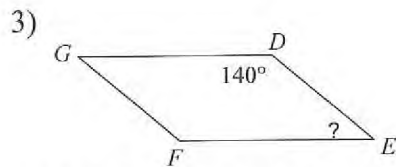
Find the measurement indicated in each parallelogram.



- A) 20 B) 16
C) 9 D) 17

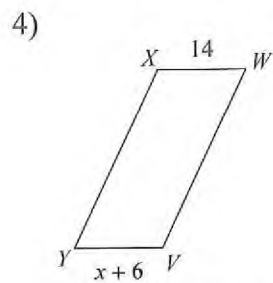


- A) 110° B) 125°
C) 75° D) 145°

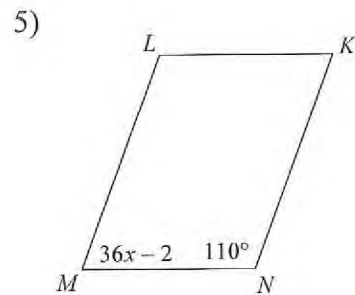


- A) 33° B) 50°
C) 150° D) 40°

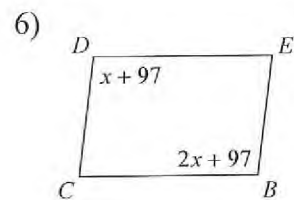
Solve for x . Each figure is a parallelogram.



- A) 3 B) 8
C) 6 D) 12

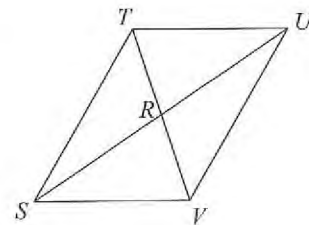


- A) 2 B) 10
C) 8 D) 0



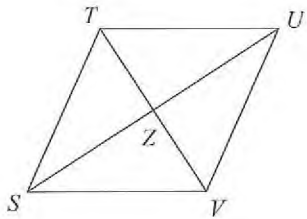
- A) 12 B) 9
C) 0 D) 8

7) $TR = 22$
 $RV = 2x + 4$



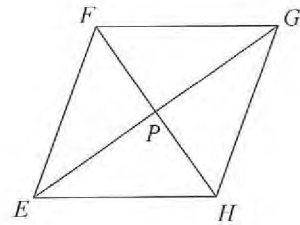
- A) 5 B) 9
C) 10 D) 0

8) $TZ = x + 14$
 $ZV = 2x + 5$



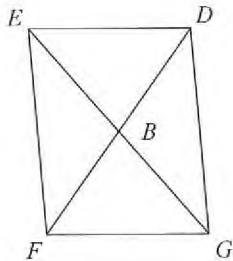
- A) 12 B) 0
 C) 9 D) 10

9) $FH = 18$
 $PH = 5x - 1$



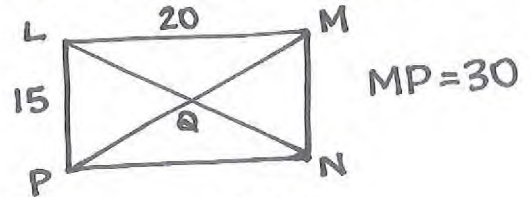
- A) 0 B) 6
 C) 2 D) 3

10) $BD = 11$
 $FD = x + 10$



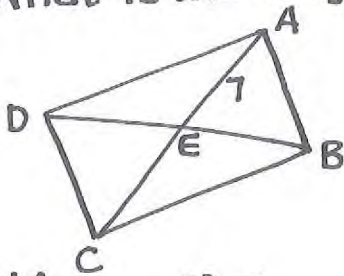
- A) 9 B) 2
 C) 11 D) 12

11) LMNP is a rectangle.
 What is the length of \overline{LN} ?



- A) 15 B) 20
 C) 10 D) 30

12) ABCD is a rectangle.
 What is the length of \overline{DE} ?



- A) 14 B) 7
 C) 3.5 D) 8

Parallelograms Station Answers

- | | |
|------|-------|
| 1) D | 7) B |
| 2) C | 8) C |
| 3) D | 9) C |
| 4) B | 10) D |
| 5) A | 11) D |
| 6) C | 12) B |

Parallelograms Station Answers

- | | |
|------|-------|
| 1) D | 7) B |
| 2) C | 8) C |
| 3) D | 9) C |
| 4) B | 10) D |
| 5) A | 11) D |
| 6) C | 12) B |

Parallelograms Station Answers

- | | |
|------|-------|
| 1) D | 7) B |
| 2) C | 8) C |
| 3) D | 9) C |
| 4) B | 10) D |
| 5) A | 11) D |
| 6) C | 12) B |

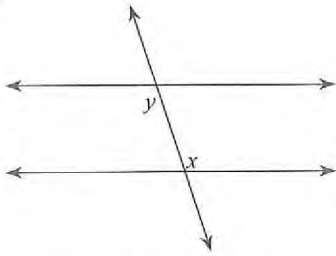
Parallelograms Station Answers

- | | |
|------|-------|
| 1) D | 7) B |
| 2) C | 8) C |
| 3) D | 9) C |
| 4) B | 10) D |
| 5) A | 11) D |
| 6) C | 12) B |

Theorems about Lines and Angles Station

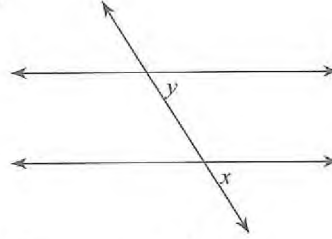
Identify each pair of angles as corresponding, alternate interior, same-side interior, or vertical.

1)



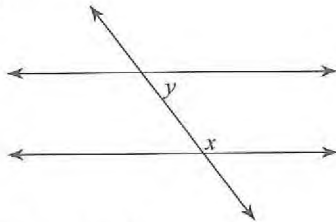
- A) same-side interior
- B) alternate interior
- C) corresponding
- D) vertical

2)



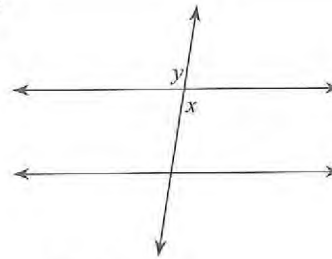
- A) corresponding
- B) vertical
- C) alternate interior
- D) same-side interior

3)



- A) vertical
- B) corresponding
- C) alternate interior
- D) same-side interior

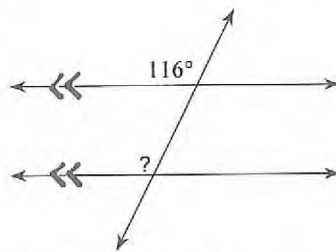
4)



- A) vertical
- B) corresponding
- C) same-side interior
- D) alternate interior

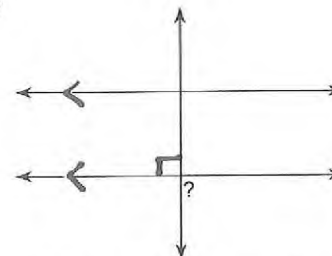
Find the measure of each angle indicated.

5)



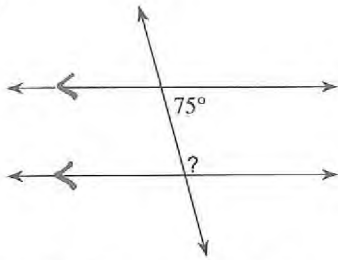
- A) 96°
- B) 144°
- C) 66°
- D) 116°

6)



- A) 70°
- B) 103°
- C) 90°
- D) 65°

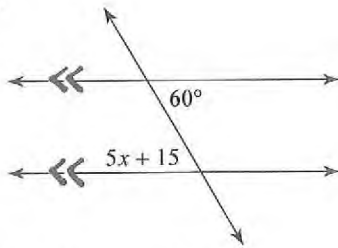
7)



- A) 124° B) 60°
 C) 105° D) 55°

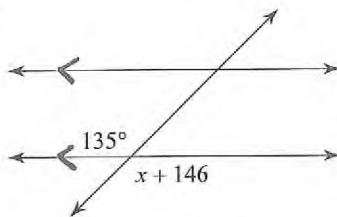
Solve for x .

9)



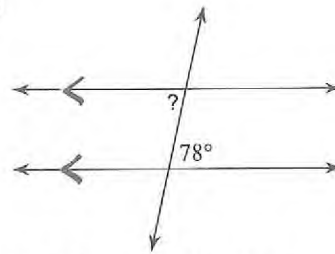
- A) 11 B) 9
 C) -8 D) -5

11)



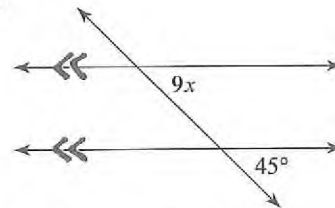
- A) -11 B) 9
 C) 5 D) 4

8)



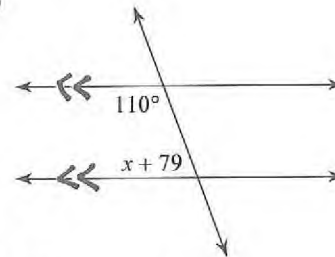
- A) 65° B) 115°
 C) 80° D) 78°

10)



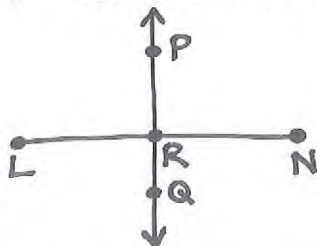
- A) 11 B) 10
 C) 5 D) 6

12)



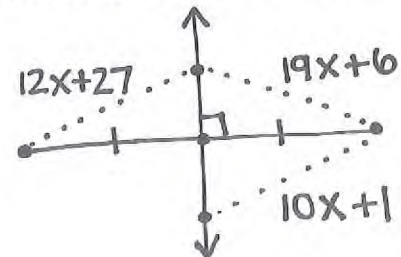
- A) 8 B) 7
 C) 9 D) -9

13) \overleftrightarrow{PQ} is the perpendicular bisector of \overline{LN} . Which statement is NOT true?



- A) $LR = RN$ B) $LP = PN$
 C) $PR = RQ$ D) $LQ = QN$

14) Find the value of x .



- A) 3 B) -13
 C) $-\frac{5}{9}$ D) -3

Theorems about Lines
and Angles Station
Answers

- | | |
|------|-------|
| 1) B | 8) D |
| 2) A | 9) B |
| 3) D | 10) C |
| 4) A | 11) A |
| 5) D | 12) D |
| 6) C | 13) C |
| 7) C | 14) A |

Theorems about Lines
and Angles Station
Answers

- | | |
|------|-------|
| 1) B | 8) D |
| 2) A | 9) B |
| 3) D | 10) C |
| 4) A | 11) A |
| 5) D | 12) D |
| 6) C | 13) C |
| 7) C | 14) A |

Theorems about lines
and Angles Station
Answers

- | | |
|------|-------|
| 1) B | 8) D |
| 2) A | 9) B |
| 3) D | 10) C |
| 4) A | 11) A |
| 5) D | 12) D |
| 6) C | 13) C |
| 7) C | 14) A |

Theorems about lines
and Angles Station
Answers

- | | |
|------|-------|
| 1) B | 8) D |
| 2) A | 9) B |
| 3) D | 10) C |
| 4) A | 11) A |
| 5) D | 12) D |
| 6) C | 13) C |
| 7) C | 14) A |