Question ID 0e245a77

| Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium
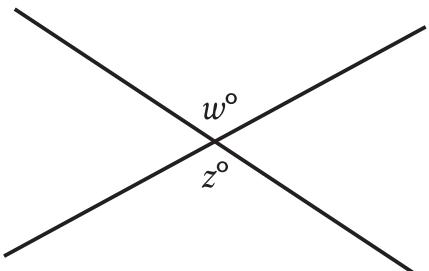
Note: Figure not drawn to scale.

In the figure, two lines intersect at a point. If $w = 136$, what is the value of z?

A. 36

B. 44

C. 68

D. 136

Question ID f9addc5d

| Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium
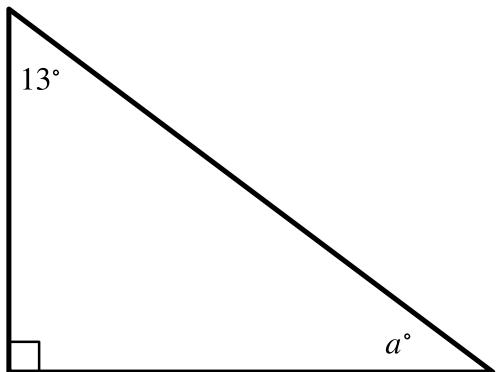
Note: Figure not drawn to scale.

In the right triangle shown, what is the value of a?

A. 13

B. 77

C. 90

D. 103

Question ID 77fea3f6

| Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: 77fea3f6
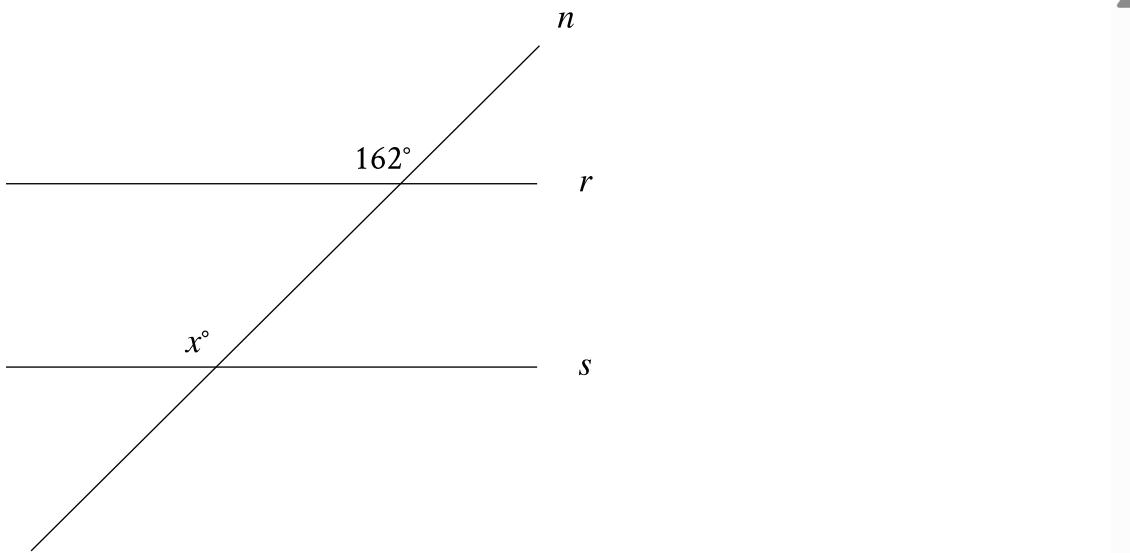
Note: Figure not drawn to scale.

In the figure, line n intersects lines r and s. Line r is parallel to line s. What is the value of x?

Question ID 6cb8d47f

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium
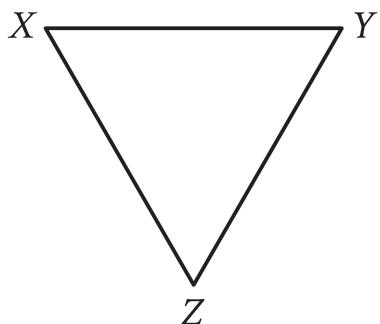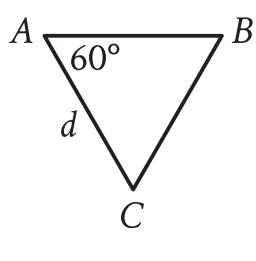
Note: Figures not drawn to scale.

For the triangles shown, triangle ABC is dilated by a scale factor of 3 to obtain triangle XYZ, where $d = 16$. What is the measure, in degrees, of angle X?

A. 20

B. 57

C. 60

D. 63

Question ID 61c79894

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: 61c79894

Triangles EFG and JKL are congruent, where E, F, and G correspond to J, K, and L, respectively. The measure of angle E is $45°$ and the measure of angle F is $20°$. What is the measure of angle J?

A. $20°$

B. $45°$

C. $135°$

D. $160°$

Question ID ae474eb4

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: ae474eb4

In $\triangle XYZ$, the measure of $\angle X$ is $23\degree$ and the measure of $\angle Y$ is $66\degree$. What is the measure of $\angle Z$?

A. $43\degree$

B. $89\degree$

C. $91\degree$

D. $179\degree$

Question ID 020141da

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: 020141da

In a right triangle, the measure of one of the acute angles is $51°$. What is the measure, in degrees, of the other acute angle?

A. 6

B. 39

C. 49

D. 51

Question ID 9bc228cb

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: 9bc228cb

In triangle ABC, the measure of angle B is $52°$ and the measure of angle C is $17°$. What is the measure of angle A?

A. $21°$

B. $35°$

C. $69°$

D. $111°$

Question ID 889921f9

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: 889921f9

In $\triangle RST$, the measure of $\angle R$ is $63\degree$. Which of the following could be the measure, in degrees, of $\angle S$?

A. 116

B. 118

C. 126

D. 180

Question ID 74343bea

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: 74343bea

In $\triangle XYZ$, the measure of $\angle X$ is $24°$ and the measure of $\angle Y$ is $98°$. What is the measure of $\angle Z$?

A. $58°$

B. $74°$

C. $122°$

D. $212°$

Question ID c0826656

| Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: c0826656
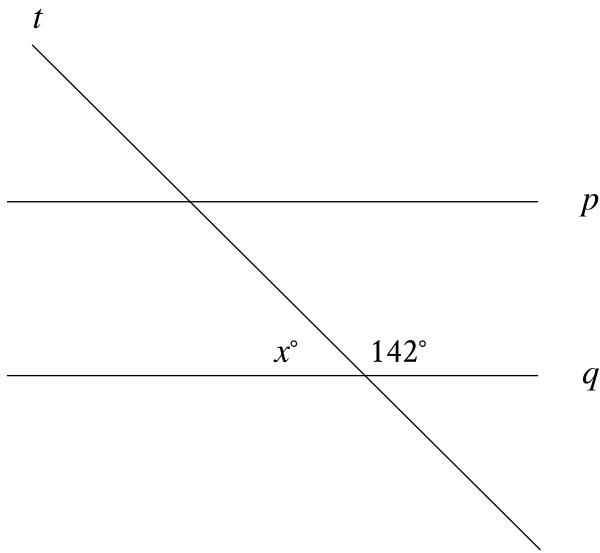
Note: Figure not drawn to scale.

In the figure, line p is parallel to line q, and line t intersects both lines. What is the value of $x + 142$?

A. 52

B. 90

C. 142

D. 180

Question ID 832e0f0d

| Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: 832e0f0d
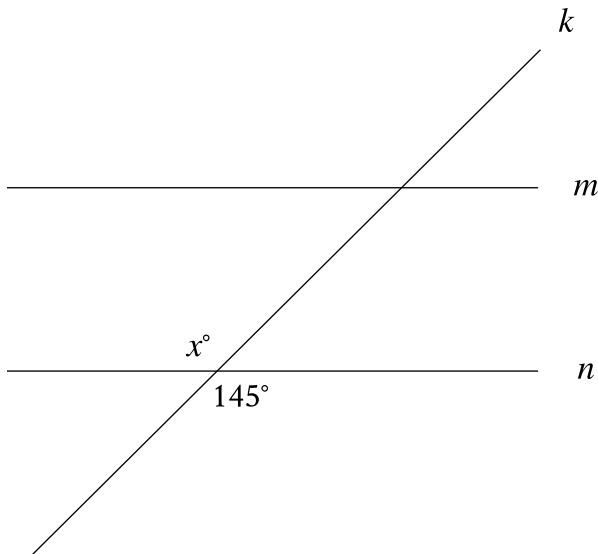
Note: Figure not drawn to scale.

In the figure, line m is parallel to line n, and line k intersects both lines. Which of the following statements is true?

A. The value of x is less than 145.

B. The value of x is greater than 145.

C. The value of x is equal to 145.

D. The value of x cannot be determined.

Question ID c2518db3

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: c2518db3
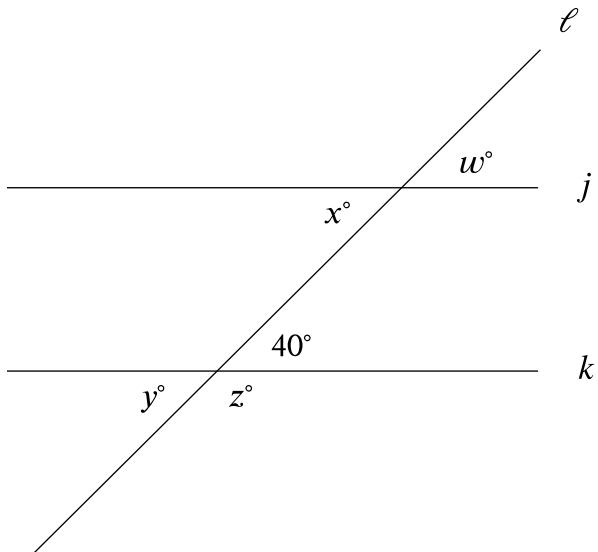
Note: Figure not drawn to scale.

In the figure shown, line ℓ intersects lines j and k. Which additional piece of information is sufficient to prove that lines j and k are parallel?

A. $w = 40$

B. $x = 140$

C. $y = 40$

D. $z = 140$

Question ID 201ae66a

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: 201ae66a

In triangle ABC, $AB = 4{,}680$ millimeters (mm) and $BC = 4{,}680 \text{ mm}$. Which statement is sufficient to prove that triangle ABC is equilateral?

A. $AC = 4{,}680 \text{ mm}$

B. $AC = 468 \text{ mm}$

C. $AC = 46.8 \text{ mm}$

D. $AC = 4.68 \text{ mm}$