

Question ID d9e83476

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

ID: d9e83476

Quadrilateral $P'Q'R'S'$ is similar to quadrilateral $PQRS$, where P , Q , R , and S correspond to P' , Q' , R' , and S' , respectively. The measure of angle P is 30° , the measure of angle Q is 50° , and the measure of angle R is 70° . The length of each side of $P'Q'R'S'$ is 3 times the length of each corresponding side of $PQRS$. What is the measure of angle P' ?

- A. 10°
- B. 30°
- C. 40°
- D. 90°

Question ID b954d48e

Assessment	Test	Domain	Skill	Difficulty
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ID: b954d48e

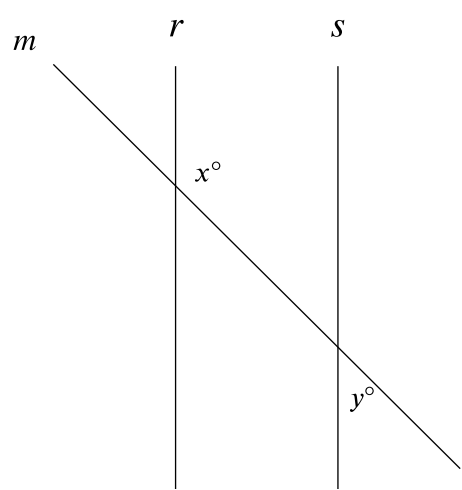
In triangle ABC , the measure of angle A is 54° , the measure of angle B is 90° , and the measure of angle C is $\left(\frac{k}{2}\right)^\circ$. What is the value of k ?

- A. 36
- B. 45
- C. 72
- D. 108

Question ID 681fe1cf

Assessment	Test	Domain	Skill	Difficulty
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ID: 681fe1cf



Note: Figure not drawn to scale.

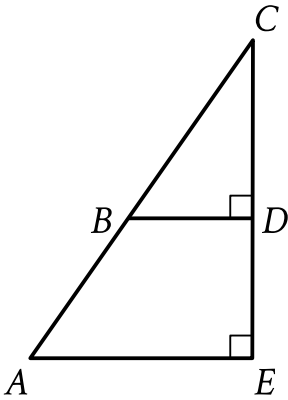
In the figure shown, lines r and s are parallel, and line m intersects both lines. If $y < 65$, which of the following must be true?

- A. $x < 115$
- B. $x > 115$
- C. $x + y < 180$
- D. $x + y > 180$

Question ID 19cc1d6d

Assessment	Test	Domain	Skill	Difficulty
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ID: 19cc1d6d



Note: Figure not drawn to scale.

In the figure shown, triangle CAE is similar to triangle CBD . The measure of angle CBD is 57° , and $AE = 26(BD)$. What is the measure of angle CAE ?

- A. $(26 \cdot 57)^\circ$
- B. $(26 + 57)^\circ$
- C. 57°
- D. 26°

Question ID 7eb3fa96

Assessment	Test	Domain	Skill	Difficulty
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ID: 7eb3fa96

Right triangles LMN and PQR are similar, where L and M correspond to P and Q , respectively. Angle M has a measure of 53° . What is the measure of angle Q ?

- A. 37°
- B. 53°
- C. 127°
- D. 143°

Question ID 875a6a8b

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

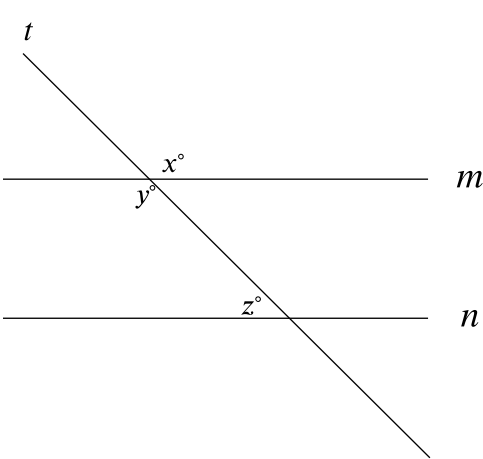
ID: 875a6a8b

Triangles ABC and DEF are congruent, where A corresponds to D , and B and E are right angles. The measure of angle A is 69° . What is the measure, in degrees, of angle F ?

Question ID 8bca291d

Assessment	Test	Domain	Skill	Difficulty
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ID: 8bca291d



Note: Figure not drawn to scale.

In the figure, lines m and n are parallel. If $x = 6k + 13$ and $y = 8k - 29$, what is the value of z ?

- A. 3
- B. 21
- C. 41
- D. 139

Question ID 0748d686

Assessment	Test	Domain	Skill	Difficulty
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ID: 0748d686

In triangle DEF , the measure of angle D is 47° and the measure of angle E is 97° . In triangle RST , the measure of angle R is 47° and the measure of angle S is 97° . Which of the following additional pieces of information is needed to determine whether triangle DEF is similar to triangle RST ?

- A. The measure of angle F
- B. The measure of angle T
- C. The measure of angle F and the measure of angle T
- D. No additional information is needed.

Question ID ba00aba9

Assessment	Test	Domain	Skill	Difficulty
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ID: ba00aba9

Two nearby trees are perpendicular to the ground, which is flat. One of these trees is **10** feet tall and has a shadow that is **5** feet long. At the same time, the shadow of the other tree is **2** feet long. How tall, in feet, is the other tree?

- A. **3**
- B. **4**
- C. **8**
- D. **27**

Question ID 7ecb3059

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

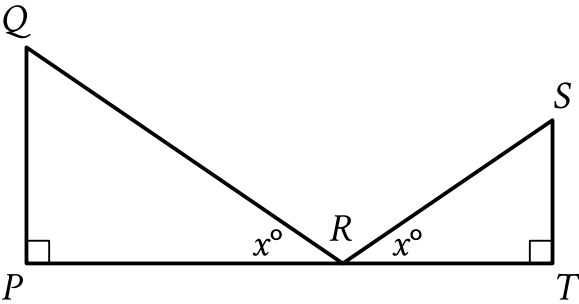
ID: 7ecb3059

In triangle JKL , the measures of $\angle K$ and $\angle L$ are each 48° . What is the measure of $\angle J$, in degrees? (Disregard the degree symbol when entering your answer.)

Question ID 427423db

Assessment	Test	Domain	Skill	Difficulty
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ID: 427423db



Note: Figure not drawn to scale.

$\triangle QPR$ is similar to $\triangle STR$. The lengths represented by \overline{ST} , \overline{QP} , \overline{PR} , and \overline{QR} in the figure are 14, 15, 20, and 25, respectively. What is the length of \overline{SR} ?

- A. $\frac{350}{15}$
- B. $\frac{350}{20}$
- C. $\frac{210}{20}$
- D. $\frac{210}{25}$

Question ID 48b69ecb

Assessment	Test	Domain	Skill	Difficulty
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ID: 48b69ecb

Each side of equilateral triangle S is multiplied by a scale factor of k to create equilateral triangle T. The length of each side of triangle T is greater than the length of each side of triangle S. Which of the following could be the value of k ?

- A. $\frac{29}{28}$
- B. 1
- C. $\frac{28}{29}$
- D. 0

Question ID 338f0d42

Assessment	Test	Domain	Skill	Difficulty
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ID: 338f0d42

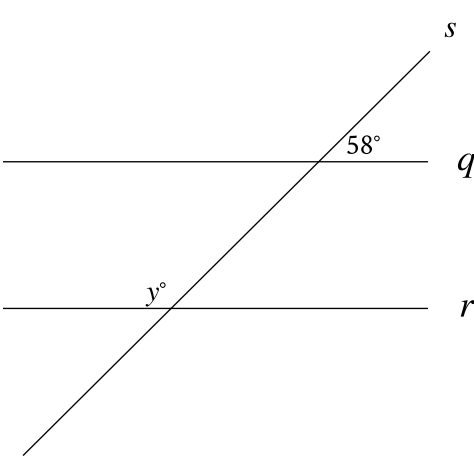
Triangle ABC is similar to triangle XYZ , where A , B , and C correspond to X , Y , and Z , respectively. In triangle ABC , the length of \overline{AB} is 170 and the length of \overline{BC} is 850. In triangle XYZ , the length of \overline{YZ} is 60. What is the length of \overline{XY} ?

- A. 204
- B. 182
- C. 60
- D. 12

Question ID 14b418db

Assessment	Test	Domain	Skill	Difficulty
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ID: 14b418db



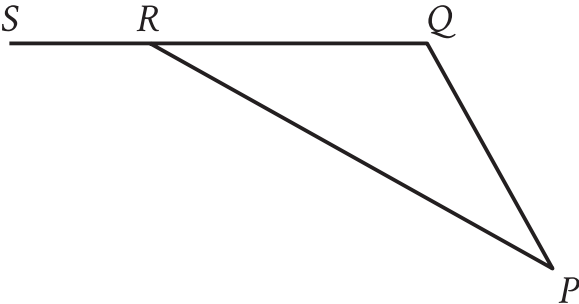
Note: Figure not drawn to scale.

In the figure, line q is parallel to line r , and both lines are intersected by line s . If $y = 2x + 8$, what is the value of x ?

Question ID 26c126bb

Assessment	Test	Domain	Skill	Difficulty
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ID: 26c126bb



Note: Figure not drawn to scale.

In triangle PQR , \overline{QR} is extended to point S . The measure of $\angle PQR$ is 132° , and the measure of $\angle PRS$ is 163° . What is the measure of $\angle QPR$?

- A. 48°
- B. 31°
- C. 24°
- D. 17°

Question ID 35d7123b

Assessment	Test	Domain	Skill	Difficulty
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ID: 35d7123b

Triangle ABC is similar to triangle XYZ , such that A , B , and C correspond to X , Y , and Z respectively. The length of each side of triangle XYZ is 2 times the length of its corresponding side in triangle ABC . The measure of side AB is 16 . What is the measure of side XY ?

- A. 14
- B. 16
- C. 18
- D. 32