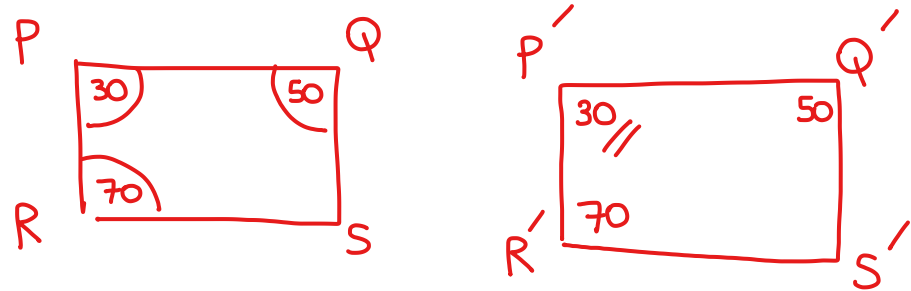


Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

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
SAT	Math	Geometry and Trigonometry	Lines, angles, and triangles	Medium

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 $(\frac{k}{2})^\circ$. What is the value of k ?

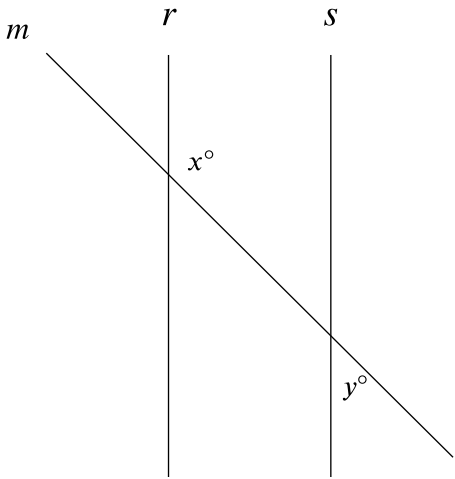
- A. 36
- B. 45
- ~~C. 72~~
- D. 108

$$\frac{k}{2} = 180 - 54 - 90$$
$$k = 72 //$$

Question ID 681fe1cf

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

ID: 681fe1cf



Note: Figure not drawn to scale.



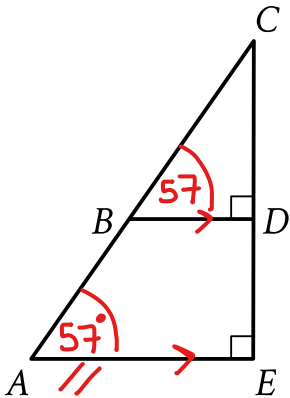
In the figure shown, lines *r* and *s* are parallel, and line *m* intersects both lines. If *y* < 65, which of the following must be true?

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

Question ID 19cc1d6d

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

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°

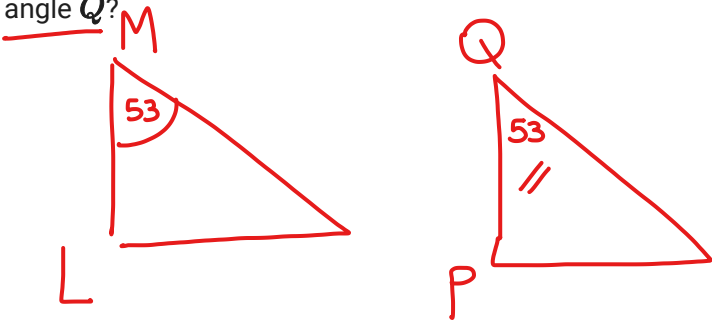
Question ID 7eb3fa96

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

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°

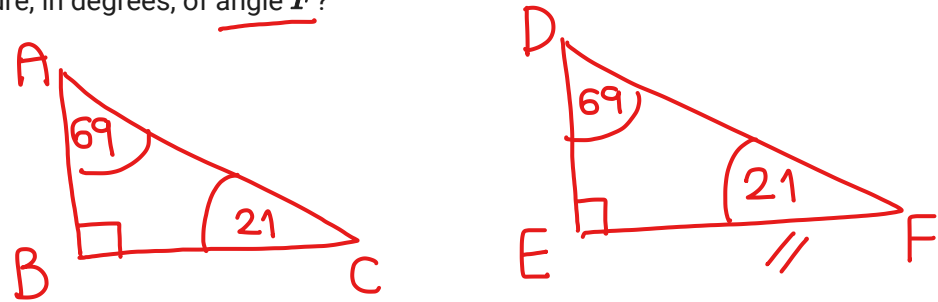


Question ID 875a6a8b

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

ID: 875a6a8b

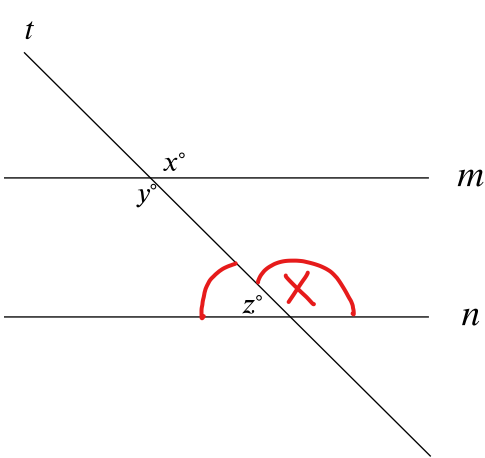
Triangles ABC and DEF are congruent, where A corresponds to D , and B and E are right angles. The measure of angle A is 69° . What is the measure, in degrees, of angle F ?



Question ID 8bca291d

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

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

↓ 139

↓ 139

$$6k + 13 = 8k - 29$$
$$k = 21$$
$$180 - 139 = 41 //$$

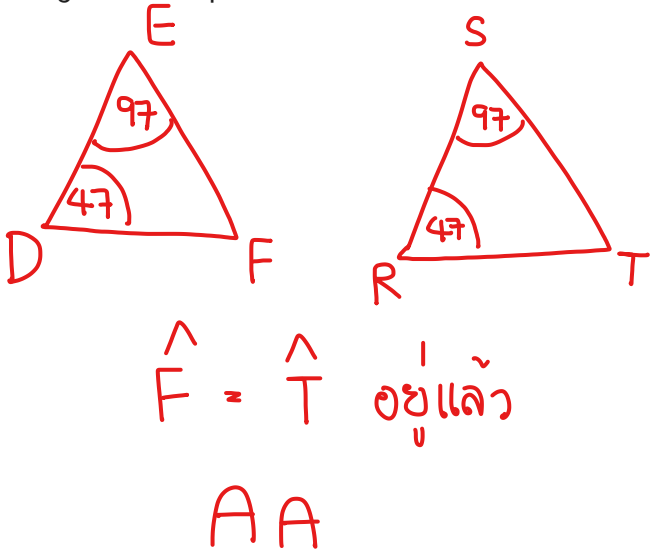
Question ID 0748d686

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

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



Question ID ba00aba9

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

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

10

5

X

2

10

5

=

X

2

X

=

4

//

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.)

$$180 - 48 - 48 = 84 //$$

Question ID 427423db

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

ID: 427423db

Note: Figure not drawn to scale.

$$\frac{x}{14} = \frac{25}{15}$$
$$x = \frac{70}{3} = \frac{350}{15}$$

$\triangle QPR$ 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 $\overline{SR}$?

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

Question ID 48b69ecb

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

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~~

$k > 1$

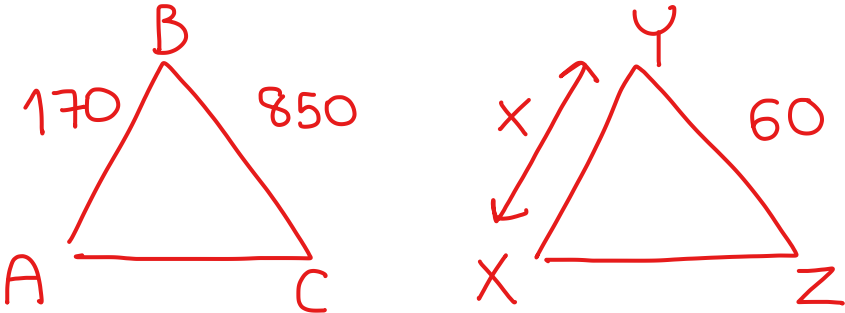
Question ID 338f0d42

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

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~~

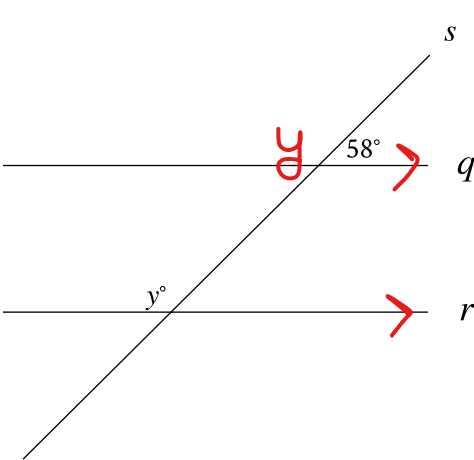


$$\frac{170}{X} = \frac{850}{60}$$
$$X = 12 //$$

Question ID 14b418db

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

ID: 14b418db



Note: Figure not drawn to scale.

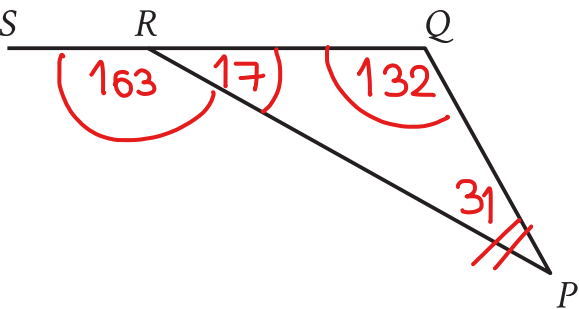
In the figure, line q is parallel to line r , and both lines are intersected by line s . If $y = 2x + 8$, what is the value of x ?

$$\begin{aligned} 2x + 8 + 58 &= 180 \\ x &= 57 \\ y &= 122 \end{aligned}$$

Question ID 26c126bb

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

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°

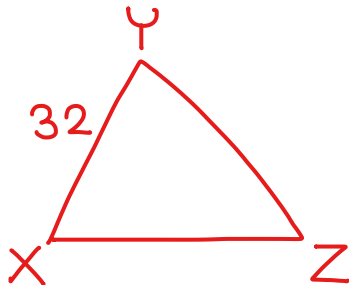
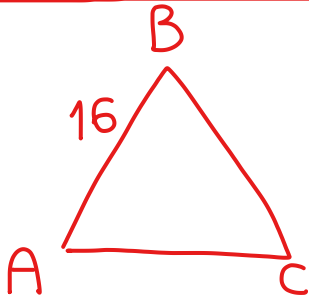
Question ID 35d7123b

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

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~~



$S_{XYZ} = 2 S_{ABC}$
 $32 = 2(16)$
//