Math Drill

Time yourself from start to finish and record your time below. The SAT Non-Calculator section is all about speed and practice makes perfect!

YOUR TIME: _____

Multiply and Divide (B)
Find each product or quotient.

10	60	2	34	15	18	63	224	5	4
× 3	÷ 3	÷ 1	÷ 2	× 1	× 9	÷ 7	÷ 14	× 10	× 10

32	15	13	19	4	7	5	14	210	320
÷ 4	× 19	× 9	× 14	× 14	× 20	× 3	× 11	÷ 14	÷ 16

91	17	120	9	1	192	10	8	306	169
÷ 13	× 4	÷ 15	× 20	× 10	÷ 16	× 20	× 17	÷ 17	÷ 13

18	7	5	8	266	1	171	8	3	18
× 17	× 13	× 18	÷ 4	÷ 14	× 17	÷ 9	× 13	× 5	÷ 1

20	19	6	18	16	3	34	7	238	8
× 2	× 2	× 7	× 6	÷ 8	× 16	÷ 17	× 6	÷ 14	× 9

7	11	21	13	70	64	8	75	20	3
× 10	× 4	÷ 7	× 6	÷ 7	÷ 4	× 12	÷ 15	× 16	× 2

12	11	9	3	165	12	9	1	48	20
× 9	× 12	× 20	× 15	÷ 11	× 2	× 7	× 16	÷ 16	× 8

24	20	13	5	7	2	6	5	12	17
÷ 3	× 12	× 2	× 11	× 3	× 4	× 1	× 17	× 1	× 7

2	15	19	60	65	26	10	3	11	19
× 13	× 7	× 18	÷ 12	÷ 13	÷ 13	× 9	× 8	× 12	× 9

13	17	8	16	14	171	15	72	28	9
× 20	× 1	÷ 4	÷ 1	× 6	÷ 19	× 18	÷ 9	÷ 14	÷ 3

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Unit 17 - Triangles

Topic: Angles of a Triangle

1

In the triangle above, what is the value of x?

A) 44

B) 48

C) 52

D) 56

2
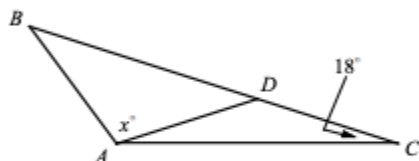
In $\triangle ABC$ above, if $AB = AD = DC$, what is the value of x?

A) 92

B) 96

C) 102

D) 108

3
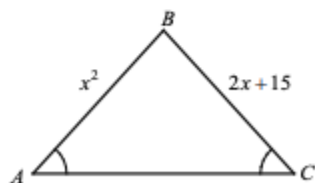
In $\triangle ABC$ above, $m\angle A = m\angle C$. If $x > 0$, what is the value of x?

4
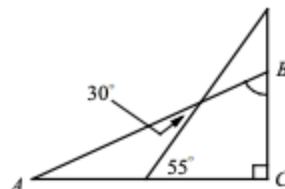
Note: Figure not drawn to scale.

In the figure above, $AC \perp BC$. What is the measure of $\angle ABC$?

A) 50

B) 55

C) 60

D) 65

5

In the figure above, $AD = BD = BC$. If $m\angle A = 26$, what is the measure of $m\angle DBC$?

A) 68

B) 72

C) 76

D) 82

Topic: Pythagorean Theorem and Special Right Triangles

1

In the figure above, if $AD = BD = 2\sqrt{3}$, what is the length of AB?

A) $4\sqrt{3}$

B) $3\sqrt{6}$

C) 6

D) $6\sqrt{2}$

3

Note: Figure not drawn to scale.

In the figure above, $AB = 6$, $BC = 8$, and $CD = 5$. What is the length of AD?

A) $4\sqrt{3}$

B) $5\sqrt{2}$

C) $5\sqrt{3}$
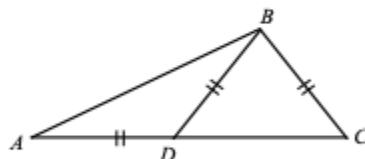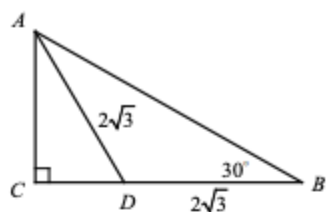
D) $6\sqrt{2}$

2
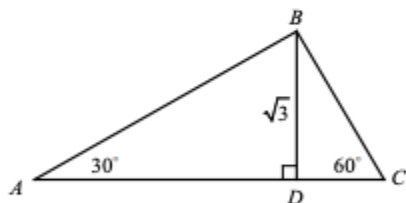
In $\triangle ABC$ above, $BD = \sqrt{3}$. What is the perimeter of $\triangle ABC$?

A) $2\sqrt{2} + 6$

B) $2\sqrt{3} + 6$

C) $2\sqrt{6} + 6$

D) $3\sqrt{2} + 6$

4

14

Note: Figure not drawn to scale.

In the figure above, $\angle A \cong \angle C$ and $\overline{BD}$ bisects $\overline{AC}$. What is the perimeter of $\triangle ABC$?

A) 32

B) 36

C) $14 + 10\sqrt{2}$

D) $14 + 12\sqrt{2}$

Topic: Similar Triangles and Proportional Parts
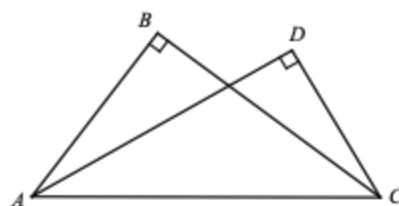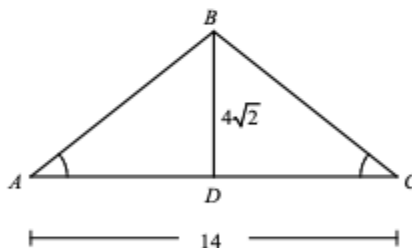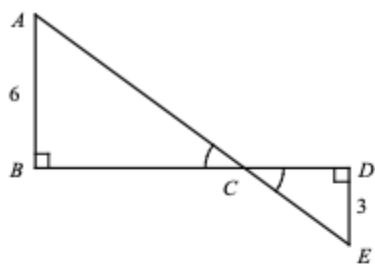
1

In the figure above, if $AB = 6$, $DE = 3$, and $BD = 12$, what is the length of AE?

A) 12

B) $9\sqrt{2}$

C) $8\sqrt{3}$

D) 15

2
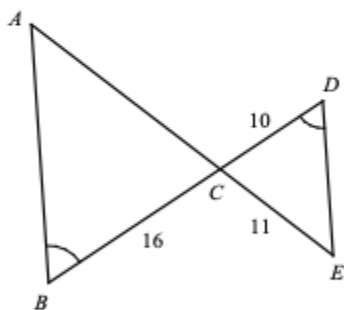
Note: Figure not drawn to scale.

In the figure above, $\angle B \cong \angle D$. If $BC = 16$, $CD = 10$, and $CE = 11$, what is the length of AE?

A) 16.8

B) 17.2

C) 17.6

D) 18.4

Questions 3 and 4 refer to the following information.
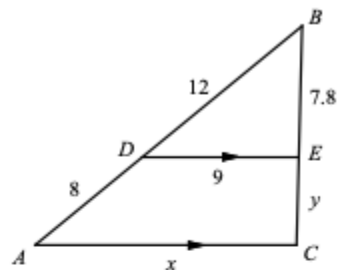
In the figure above, $\overline{DE} \parallel \overline{AC}$.

3

What is the value of x?

A) 12.5

B) 15

C) 16.5

D) 18

4

What is the value of y?

A) 5.2

B) 5.6

C) 6.0

D) 6.4

Topic: Area of a Triangle

1

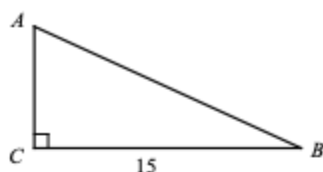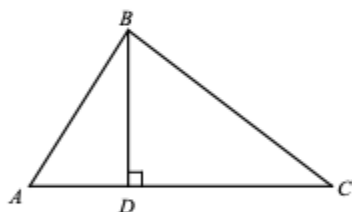In the figure above, the area of right triangle *ABC* is 60. What is the perimeter of △*ABC*?
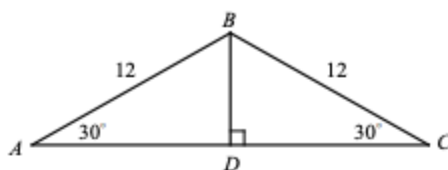
A) 34

B) 36

C) 38

D) 40

2

In triangle *ABC* above, if *BD* was increased by 50 percent and *AC* was reduced by 50 percent, how would the area of △*ABC* change?

A) The area of △*ABC* would be decreased by 25 percent.

B) The area of △*ABC* would be increased by 25 percent.

C) The area of △*ABC* would not change.
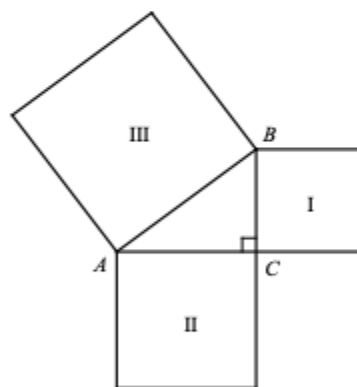
D) The area of △*ABC* would be decreased by 50 percent.

3

In the figure above, what is the area of △*ABC*?

A) $24\sqrt{3}$

B) $30\sqrt{3}$

C) $36\sqrt{3}$

D) $48\sqrt{3}$

**4**

The figure above shows right triangle △*ABC* and three squares. If the area of square region I is 80 square inches and the area of square region II is 150 square inches, which of the following is true about the area of square region III?

A) Less than 230 square inches.

B) More than 230 square inches.

C) Equal to 230 square inches.

D) It cannot be determined from the information given.
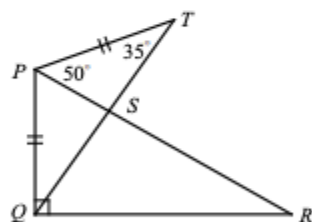
Unit 17 Review Questions

1
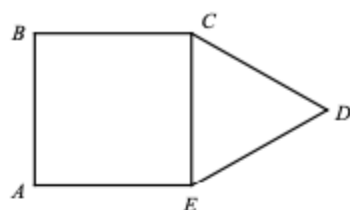
In the figure above, CDE is an equilateral triangle and $ABCD$ is a square with an area of $4x^2$. What is the area of triangle CDE in terms of x?

A) $\dfrac{\sqrt{3}}{2}x^2$

B) $\sqrt{3}x^2$

C) $\dfrac{3\sqrt{3}}{2}x^2$

D) $2\sqrt{3}x^2$

2
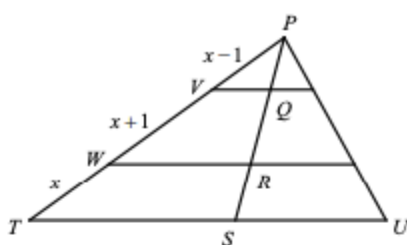

In the figure above, $\overline{PQ} \perp \overline{QR}$ and $\overline{PQ} \cong \overline{PT}$. What is the measure of $\angle R$?
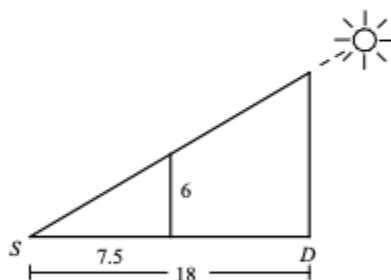
A) 30

B) 35

C) 40

D) 45

3

Note: Figure not drawn to scale.

In the figure above, $\overline{VQ} \parallel \overline{WR} \parallel \overline{TS}$.
If $PS = 15$, what is the length of $\overline{RS}$?
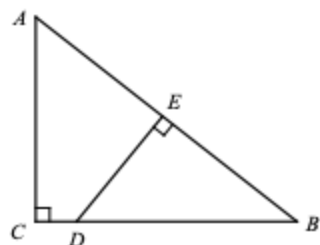
A) 4.5

B) 5

C) 6

D) 6.5

4

Note: Figure not drawn to scale.

A person 6 feet tall stands so that the ends of his shadow and the shadow of the pole coincide. The length of the person's shadow was measured 7.5 feet and the length of the pole's shadow, SD, was measured 18 feet. How tall is the pole?
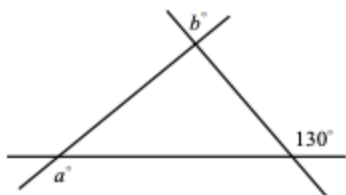
A) 12.8

B) 13.6

C) 14.4

D) 15.2

5

In the figure above, $\triangle ABC$ and $\triangle DBE$ are right triangles. If $AC = 12$, $BC = 15$, and $DE = 8$, what is the length of BE?
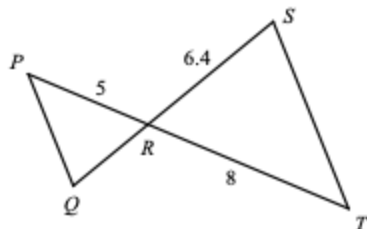
A) 8.5

B) 9

C) 9.5

D) 10
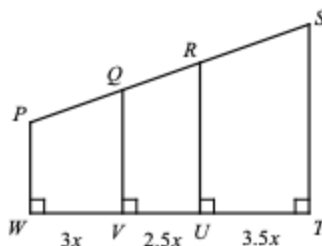
6

In the figure above, what is the value of $a - b$?

A) 50

B) 55

C) 60

D) 65

7

In the figure above, $\overline{PQ} \parallel \overline{ST}$ and segment PT intersects segment QS at R. What is the length of segment QS?

8

In the figure above, if $PS = 162$, what is the length of segment QR?

9

In the figure above, what is the area of the isosceles triangle ABC?