

Horizon Assessment System

ID: 472969

Test: West Potomac Geometry SPG Q2
Assessment 15-16

Name : _____

Student ID : _____



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of Questions: 12

Question 1 :

Given the following equation:

$$3x+23+2x-13 = 180$$

Which is the correct order of steps in solving for x .

Given: $3x+23+2x-13 = 180$

A: Step 1: $5x + 10 = 180$

Step 2: $5x = 190$

Given: $3x+23+2x-13 = 180$

B: Step 1: $5x + 10 = 180$

Step 2: $5x = 170$

Given: $3x+23+2x-13 = 180$

C: Step 1: $5x + 26 = 180$

Step 2: $5x = 144$

Given: $3x+23+2x-13 = 180$

Step 1: $5x + 36 = 180$

D: Step 2: $5x = 216$

Question 2 :

Given the following equation:

$$4x-32 = 2x + 84$$

Which is the correct order of steps in solving for x .

Given: $4x - 32 = 2x + 84$

A: Step 1: $2x - 32 = 84$

Step 2: $2x = 116$

Given: $4x - 32 = 2x + 84$

B: Step 1: $6x - 32 = 84$

Step 2: $6x = 116$

Given: $4x - 32 = 2x + 84$

C: Step 1: $2x - 32 = 84$

Step 2: $2x = 52$

Given: $4x - 32 = 2x + 84$

D: Step 1: $6x - 32 = 84$

Step 2: $6x = 52$

Question 3 :

Using the above diagram, choose the best equation to solve for x .

A:

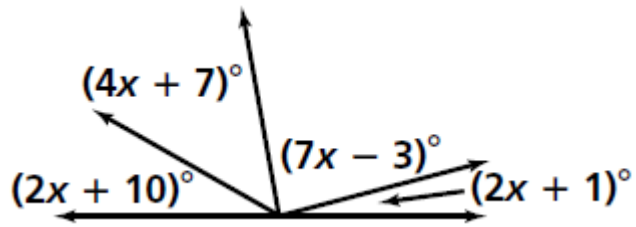
B:

C:

D:

Question 4 :

What is the correct setup to solve for x ?



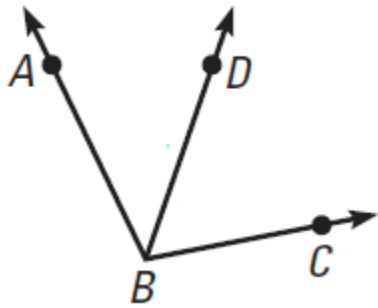
- A: $6x + 17 = 90$
- B: $15x + 21 = 180$
- C: $15x + 15 = 180$
- D: $9x - 2 = 90$

Question 5 :

Given the diagram below

$m\angle ABD = 49$, $m\angle ABC = 10x + 12$, and $m\angle DBC = 5x + 3$

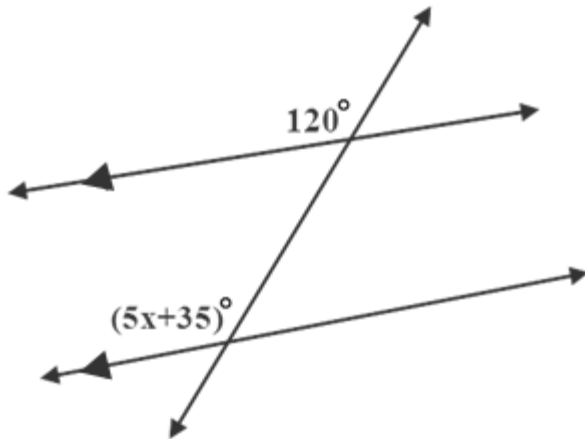
What is the correct setup for x ?



- A: $10x + 1 = 90$
- B: $5x + 3 + 49 + 10x + 12 = 180$
- C: $5x + 3 + 49 = 10x + 12$
- D: $5x + 3 = 49 + 10x + 12$

Question 6 :

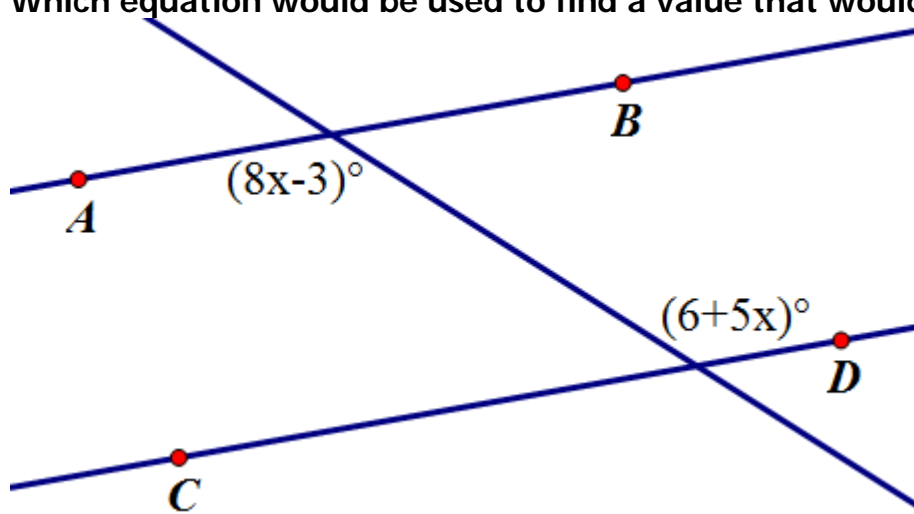
Given the diagram below, choose the best equation to solve for x .



- A: $90 = 120 + 5x + 35$
- B: $180 = 120 + 5x + 35$
- C: $120 = 5x + 35$
- D: $90 = 5x + 35$

Question 7 :

Which equation would be used to find a value that would prove $\overline{AB} \parallel \overline{CD}$?



- A: $8x - 3 = 6 + 5x$

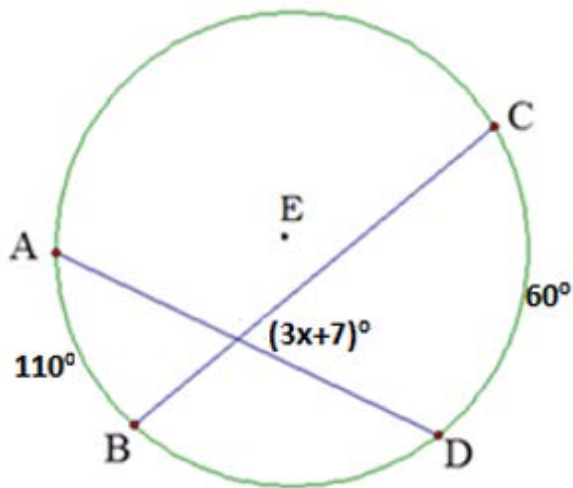
B: $8x - 3 + 6 + 5x = 90$

C: $8x - 3 + 6 + 5x = 180$

D: $\frac{8x - 3 + 6 + 5x}{2} = 180$

Question 8 :

In Circle E below, which equation shows the relationship algebraically to solve for x ?



A: $110 + 60 + 3x + 7 = 180$

B: $3x + 7 = 60$

C: $\frac{60 + 3x + 7}{2} = 110$

D: $\frac{110 + 60}{2} = 3x + 7$

Question 9 :

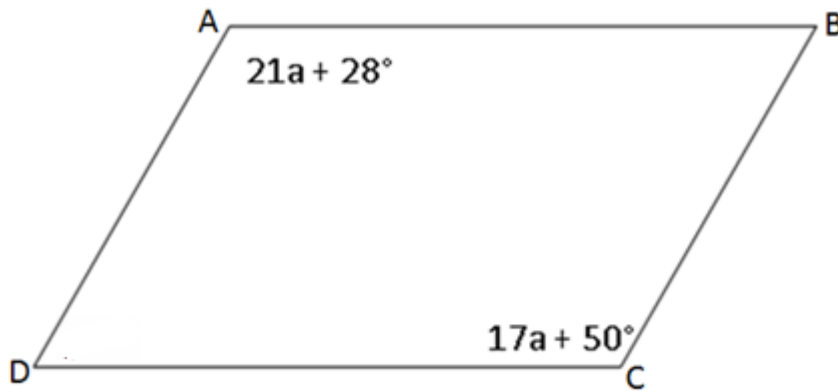


In rectangle ABCD, given $m\angle ABC$ is $4x-10$ and $m\angle BCD$ is $3x+15$, which equation would NOT be used to solve for the value x ?

- A: $4x - 10 = 3x + 15$
- B: $3x + 15 + 4x - 10 = 180$
- C: $4x - 10 + 3x + 15 = 90$
- D: $3x + 15 = 90$

Question 10 :

Figure ABCD is a parallelogram. Which equation would you set up to solve for a ?

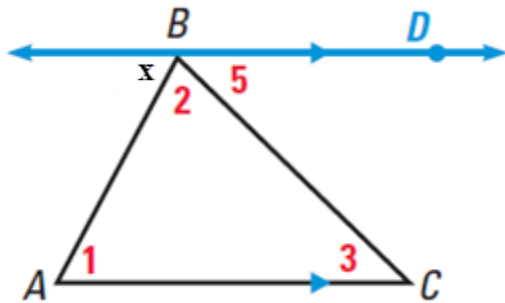


- A: $21a + 28 + 17a + 50 = 360$
- B: $21a + 28 = 17a + 50$
- C: $21a + 28 + 17a + 50 = 180$
- D: $17a + 50 = 90$

Question 11 :

Given the diagram below with $m\angle 3 = 62$ and $m\angle 2 = 2x - 20$.

Which equation shows the relationship algebraically to solve for x ?



- A: $2x - 20 = 118$
- B: $2x - 20 = 62$
- C: $2x - 20 + 118 + x = 180$
- D: $2x - 20 + 62 + x = 180$

Question 12 :

Which equation should be used to find the value of x that proves by ASA?

- A:
- B:
- C:
- D: