$\qquad$

For each problem, write an equation or proportion to solve for $x$. Do not solve.
1.

2.

3.


5.

6.


10.

11.

12.

13.

14.

15.



17.




For each problem, write an equation or proportion to solve for $x$. Do not solve.

22.



竍


Write an equation or proportion to solve each problem. Do not solve.
25. The acute angles of a right triangle are in ratio 4:7. Find the measure of each angle of the triangle.
26. The ratio of the sides of a triangle is 3:5:9. The perimeter is 2030. Find each length.
27. The perimeter of a quadrilateral is 261 and the sides are in ratio 5:5:8:12. Find each side.
28. The ratio of apples to bananas is $9: 5$. There are 45 apples. How many bananas are there?
29. The ratio of apples to bananas is $9: 5$. There are 45 bananas. How many apples are there?
30. The ratio of apples to bananas is 9:5. There are 378 total pieces of fruit. How many apples are there?

For each of the four methods to determine if two triangles are similar, state the method's name and draw a diagram with measures of required sides and angles. Place a star next to every method that will work on a quadrilateral.

