الملف أوراق عمل درس الزوايا الرأسية والمتجاورة Vertical and adjacent angles
موقع المناهج ⇐ المناهج الإماراتية ⇐ الصف السابع ⇐ رياضيات ⇐ الفصل الثالث

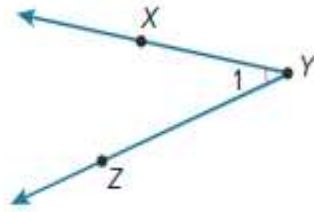| المزيد من الملفات بحسب الصف السابع والمادة رياضيات في الفصل الثالث	
امتحان نهاية العام 2012 مع نموذج الاجابة	1
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Example 1 Name Angles

Name the angle in four ways.

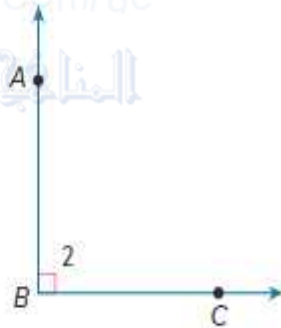Select all of the correct names for the given angle.

- [ ] $\angle 1$
- [ ] $\angle ZYX$
- [ ] $\angle XYZ$
- [ ] $\angle X$
- [ ] $\angle XZY$
- [ ] $\angle Y$
- [ ] $\angle ZXY$
- [ ] $\angle Z$

So, the angle can be named by the vertex, three points on the angle with a specified order, and a number in the interior of the angle.
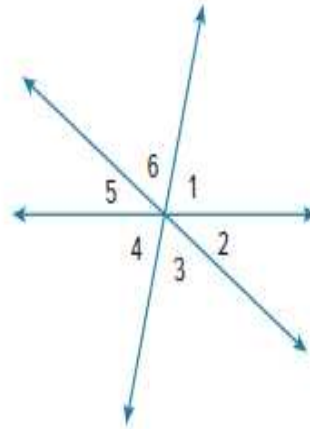
Check

Name the angle in four ways.

Example 2 Identify Vertical Angles
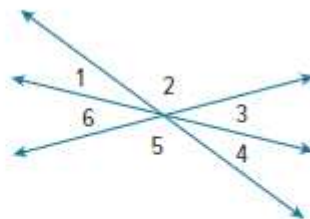
Identify the vertical angle pairs in the figure.

$\angle 1$ is vertical to $\angle$ _____ .

$\angle 2$ is vertical to $\angle$ _____ .

$\angle 3$ is vertical to $\angle$ _____ .

Check

Identify the vertical angle pairs by writing each angle label from the diagram by its corresponding vertical angle.
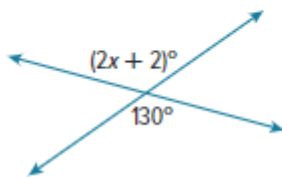
$\angle 1$ is vertical to $\angle$ _____ .

$\angle 2$ is vertical to $\angle$ _____ .
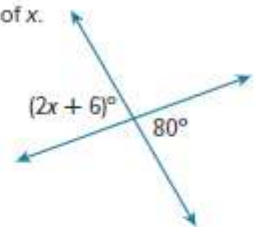
$\angle 3$ is vertical to $\angle$ _____ .

Check

Write and solve an equation to find the value of x.

$(2x + 6)°$

$80°$

Part A Write an equation.

Part B Solve the equation.

Show your work here

Example 3 Use Vertical Angles to Find Missing Values

Write and solve an equation to find the value of x.

$(2x + 2)°$

$130°$

1

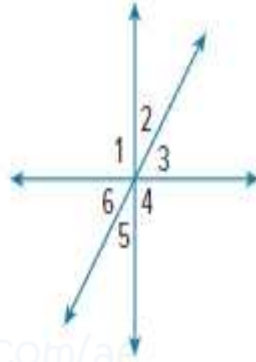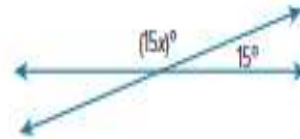## Check

Select all of the angles that are adjacent to $\angle 3$.

☐ $\angle 1$

☐ $\angle 2$

☐ $\angle 3$

☐ $\angle 4$

☐ $\angle 5$

☐ $\angle 6$

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المناهج الإماراتية

Check

Write and solve an equation to find the value of x.

$(15x)^\circ$ 15°

Part A Write an equation.

Part B Solve the equation.

Show your work here

Check

While playing racquetball, Tia bounced the ball off the wall at the angle shown. Determine the measure of $\angle A$.

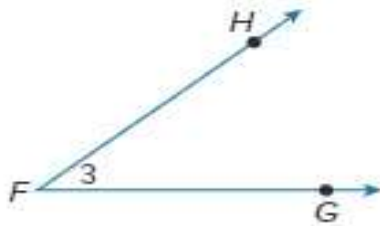$(4x - 19)^\circ$

58°

A

$(3x + 1)^\circ$

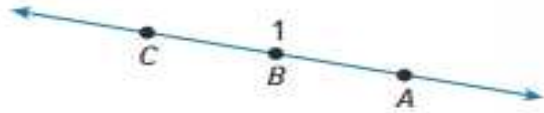The measure of $\angle A$ is _____.

Practice

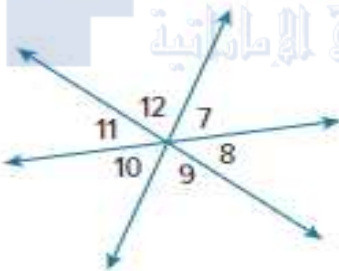🌐 Go Online You can complete your homework online.

1. Name the angle in four ways. (Example 1)
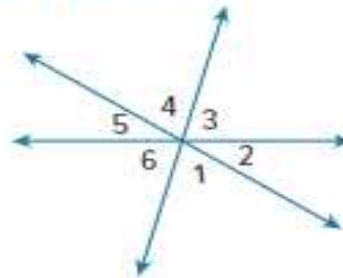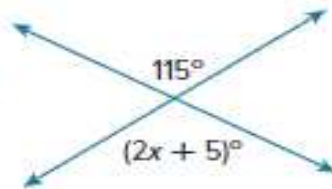
2. Name the angle in four ways. (Example 1)

3. Refer to the diagram below. Identify three pairs of vertical angles. Name all the angles that are adjacent to ∠10. (Examples 2 and 4)
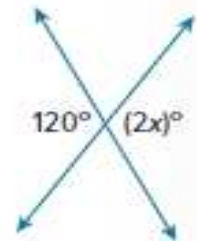
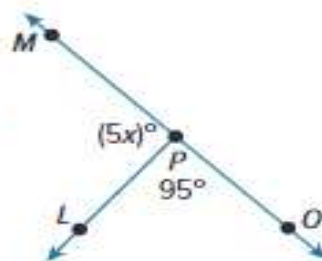**4.** Identify three pairs of vertical angles. Name all the angles that are adjacent to ∠3. (Examples 2 and 4)

5. Write and solve an equation to find the value of x. (Example 3)

115°

$(2x + 5)°$

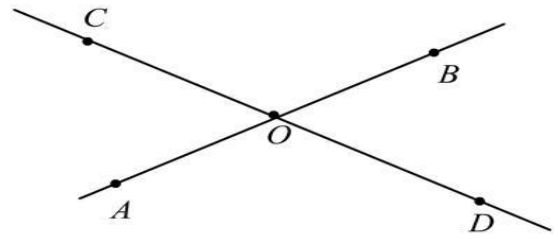**6.** Write and solve an equation to find the value of x. (Example 3)

120° $(2x)°$

Test Practice

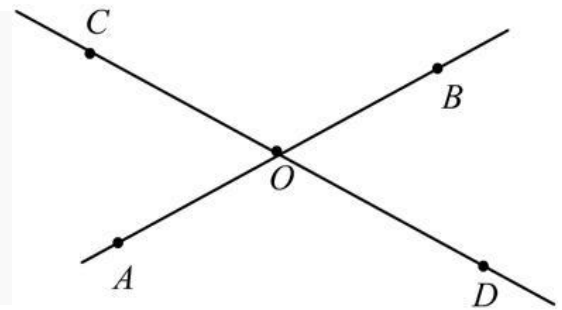**7.** Write and solve an equation to find the value of x. (Example 5)

M
$(5x)°$
P
95°
L O

8. **Open Response** Write and solve an equation to find the value of y.

$(3y)°$

120°

3

Q. Which are pairs of vertical angles?
a) ∠COB & ∠COA
b) ∠AOD & ∠AOC
c) ∠COB & ∠AOD
d) ∠BOD & ∠AOD

Q. Which are pairs of adjacent angles?
a) ∠COB & ∠DOA
b) ∠AOD & ∠AOC
c) ∠COB & ∠AOD
d) ∠BOD & ∠AOC

Q. Name the vertical angle to ∠h.
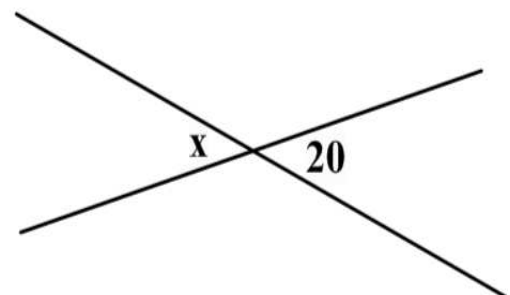a) ∠f
b) ∠i
c) ∠g
d) ∠j

Q. What angle pair is pictured?
a) Alternate Interior Angles
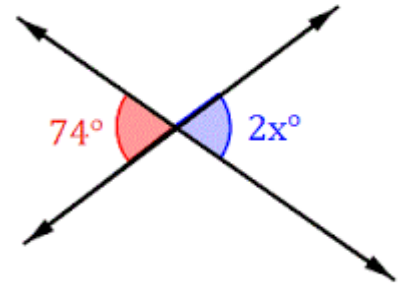b) Supplementary Angles
c) Vertical Angles
d) Corresponding Angles

Q. Find the missing angle. Find x.
a) 20∘
b) 70∘
c) 160∘

Q. What is the value of x?

a) 37

b) 72

c) 108

d) 18

$74°$ $2x°$

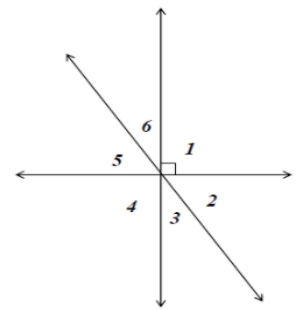**Q. Vertical angles are always**

a) acute

b) total 180 degrees
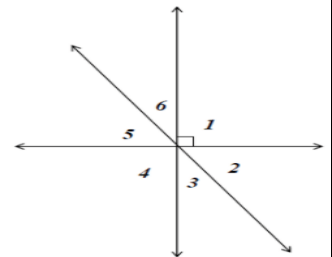
c) congruent (equal measures)

d) adjacent angles

Q. Name an angle in the figure that is adjacent to angle 2.

a) ∠4

b) ∠5

c) ∠6

d) ∠1

Q. Name a pairs of vertical angles in the figure.

a) ∠1 and ∠4

b) ∠6 and ∠5

c) ∠2 and ∠4

d) ∠1 and ∠6

Q. What angle is adjacent and supplementary to angle 5?

a) ∠4

b) ∠1

c) ∠3

d) ∠2

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