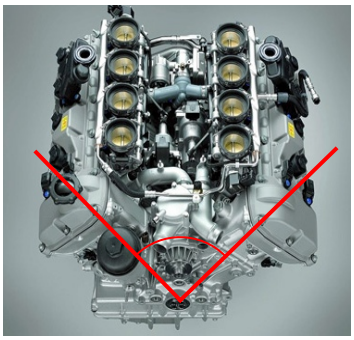
Engines

A **V8 engine** is a V shaped engine with eight cylinders
There are two rows of four cylinders.

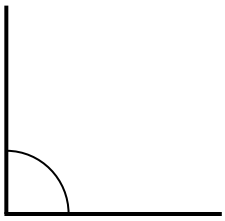
The cylinders are usually set at right angles,
but sometimes at a narrower angle.

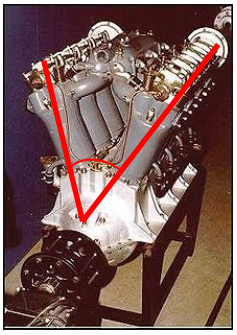
All eight pistons drive a single crankshaft.



BMW MV V8

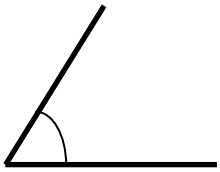
right angle
square corner
90° angle
ninety degree angle

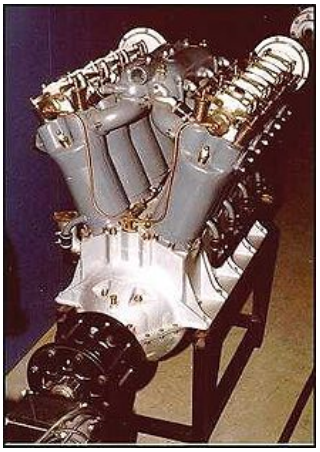




Liberty V8
aircraft motor

narrow angle
acute angle
60° angle
sixty degree angle





Label the parts of the engine:

cylinder

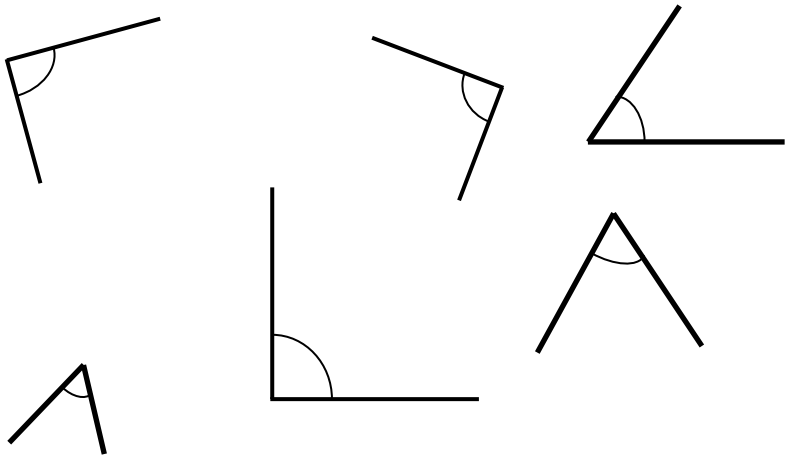
piston

crankshaft

Engine Maths

Find these:

a right angle
an acute angle
a 90˚ angle
a narrow angle
a 60˚ angle
a square corner



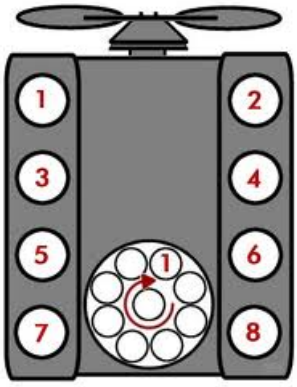
Hint: *a page has a square corners.*

Use a ruler to:

Draw an angle that is bigger than 90˚

Draw an angle that is smaller than 90˚

Draw a right angle.



Chevrolet V8 firing order of spark plugs.

A V8 motor

Total …… cylinders

4 + 4 = …….

2 rows of …… cylinders

2 x 4 = ……..

Engine Maths

A **V6 engine** is a V shaped engine with six cylinders
There are two rows of three cylinders.

The cylinders are usually set at right angles,
but sometimes at a narrower angle.

All six pistons drive a single crankshaft.

A V6 is shorter than the straight 4 and narrower than the V8. It is useful for medium sized cars.

Toyota V6 Pickup

Bugatti Veyron V16
Speed: 407 kph
(253 mph)

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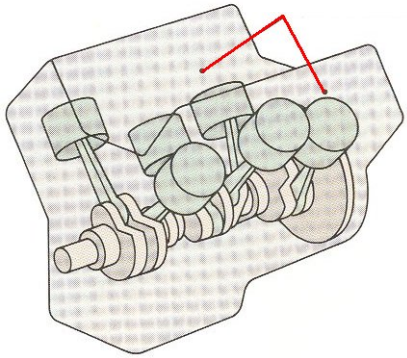
rows of cylinders

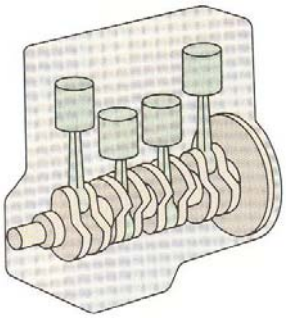


In a V6 engine there are:

____ rows of ____ cylinders

____ + ____ = 6

____ x ____ = 6



In Straight 4 engine there is:

____ row of ____ cylinders

Count in 2 s

1	2
3	___
5	___
7	___
9	___
11	___
13	___
15	___

In a V4 engine there are:

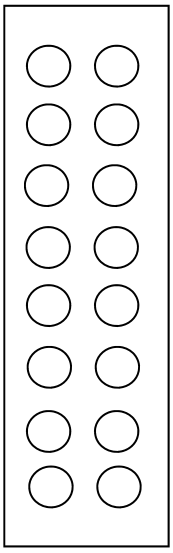
____ rows of ____ cylinders

In a V 12 engine there are:

____ rows of ____ cylinders

In a V 8 engine there are:

____ rows of ____ cylinders

In a V 16 engine there are:

____ rows of ____ cylinders