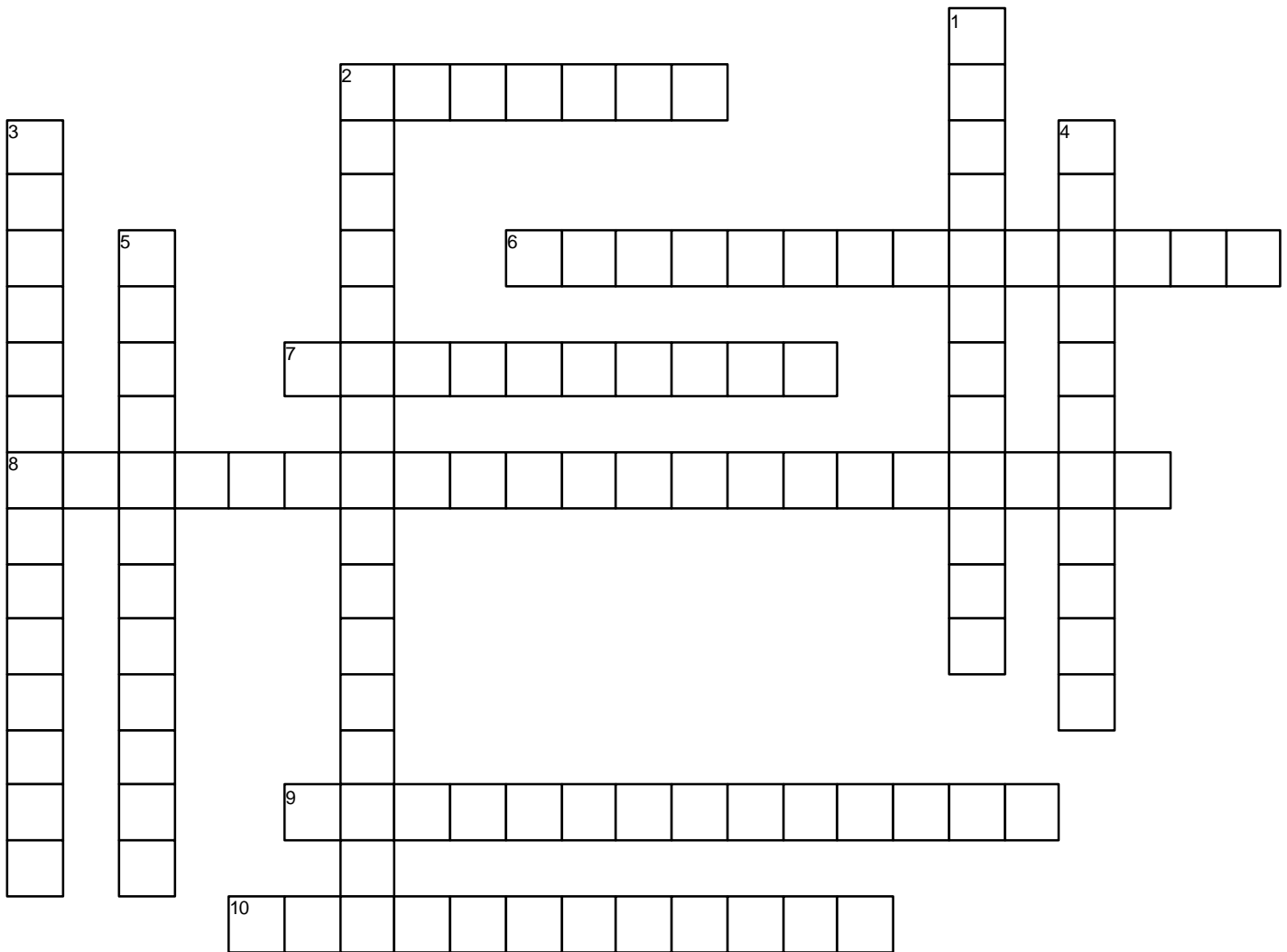


Variable Valve Timing and Displacement Systems

Chapter 28



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ACROSS

- 2 Some overhead valve (OHV) engines that use a single camshaft to _____ the valves are equipped with a phaser that allows the cam to be rotated in relation to the crankshaft to achieve VVT.
- 6 Many _____ camshaft (DOHC) engines use VVT on both the intake and the exhaust camshafts.
- 7 _____ is used on overhead camshaft (OHC) and overhead valve (OHV) cam-in-block engines.
- 8 _____ are permanently synchronized to the crankshaft so that they operate the valves at a specific point in each combustion cycle.
- 9 Variable camshafts such as the system used by Honda/Acura are called variable valve timing and _____ control (VTEC).
- 10 On a typical OHC engine, the _____ is located on the front passenger side of the cylinder head.

DOWN

- 1 A _____ controlled vane phaser is controlled by the PCM by using a 12-volt pulse-width-modulated signal to an electromagnet, which operates the OCV.
- 2 The vane phaser system used on OHC engines uses a _____ (CMP) sensor on each camshaft.
- 3 Changing the _____ timing results in improved engine performance. This is due to commanding the intake valve to close earlier in the compression stroke, resulting in less of the air/fuel charge being pushed back into the intake port (reversions).
- 4 An engine that uses VVT on the _____ is used to create an EGR effect, thereby eliminating the need for an exhaust gas recirculation (EGR) valve.
- 5 A _____ is used on overhead camshaft (OHC) engines.