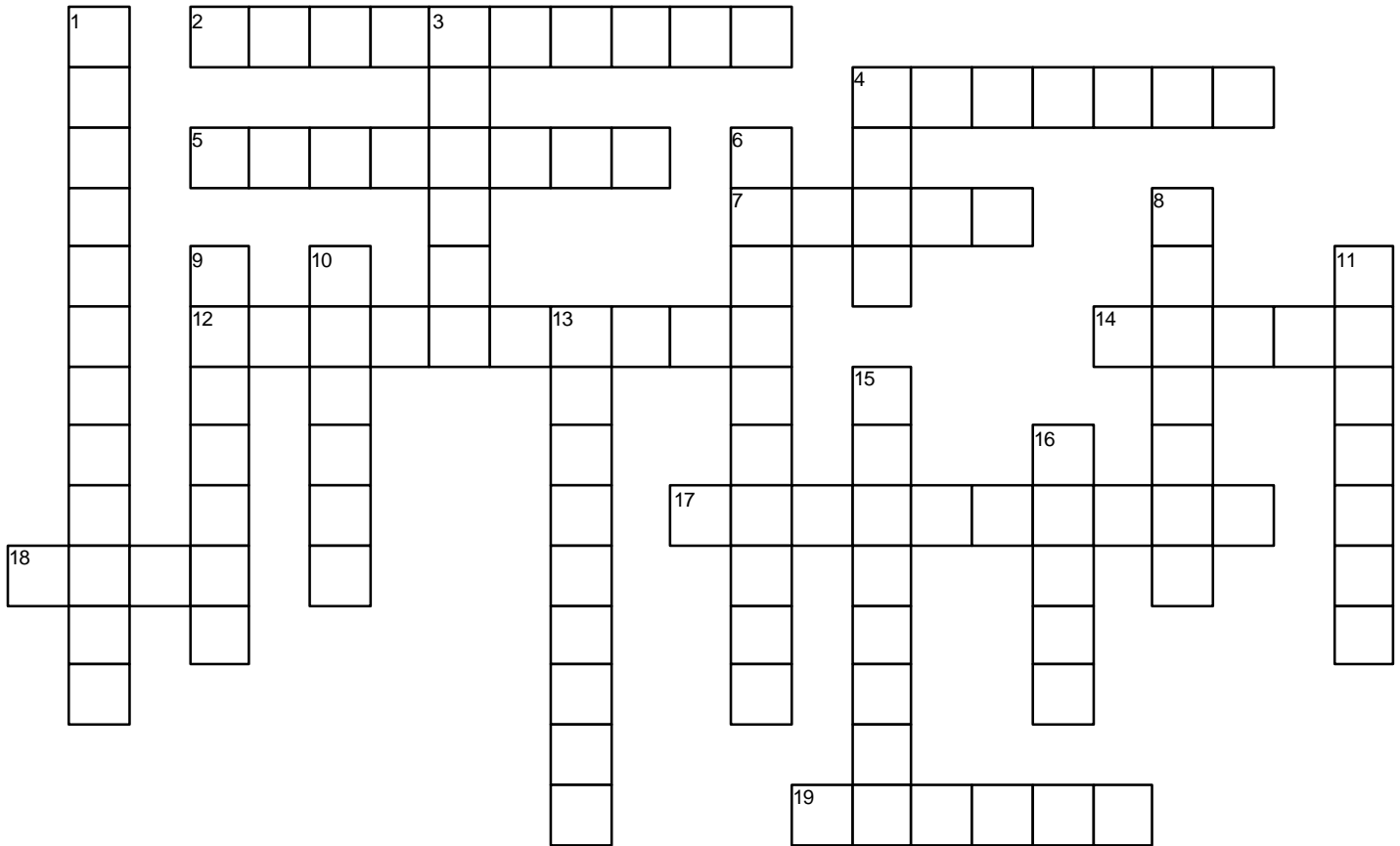


# Measuring, Math and Charts

## Chapter 11



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### ACROSS

- 2 A \_\_\_\_\_ gauge is used with a micrometer to measure the inside diameter of a hole or bore.
- 4 A \_\_\_\_\_ is a graphic design that explains or shows the arrangement of parts.
- 5 All micrometers should be checked and calibrated as needed using a \_\_\_\_\_.
- 7 A \_\_\_\_\_ is used to represent data, such as numbers or specifications, along with another variable, such as model or year of the vehicle.
- 12 \_\_\_\_\_ is the relationship of a value or number out of 100.
- 14 A \_\_\_\_\_ is a visual display of information.
- 17 A \_\_\_\_\_ is the most commonly used measuring instrument in engine service repair.
- 18 A \_\_\_\_\_ indicator is a precision measuring instrument used to measure crankshaft end play, crankshaft runout, and valve guide wear.
- 19 A \_\_\_\_\_ gauge is an accurately manufactured strip of metal that is used to determine the gap or clearance between two components.

### DOWN

- 1 \_\_\_\_\_ are units of measure, except for base units, that are a combination of units of measure.
- 3 Another name for the barrel of a micrometer is a \_\_\_\_\_.
- 4 A \_\_\_\_\_ bore gauge is an expensive, but important, gauge used to measure cylinder taper and out-of-round as well as main bearing bore for taper and out-of-round.
- 6 \_\_\_\_\_ notation is written as a number multiplied by the number of zeros to the right or left of the decimal point.
- 8 A \_\_\_\_\_ dial caliper is normally used to measure length, inside and outside diameters, and depth.
- 9 Every revolution of the thimble moves the \_\_\_\_\_ 0.025 in.
- 10 A \_\_\_\_\_ gear is rotated by the drive gear.
- 11 The \_\_\_\_\_ rotates over the sleeve on a screw that has 40 threads per inch.
- 13 Another name for a feeler gauge is a \_\_\_\_\_ gauge.
- 15 A \_\_\_\_\_ is a measurement of something that changes, such as engine speed or time.
- 16 A \_\_\_\_\_ micrometer is similar to a conventional micrometer except that it is designed to measure the depth from a flat surface.