Name: ....

Don't think of this as an exam – it's just a check to see if there are any gaps in your basic skills that we need to fill in.

If you need just a quick reminder of how to answer some of these questions then it's OK to look them up, but bear in mind that by the time of GCSE exam you need to be able to use all these skills *without* peeking!

Take as long as you need, and break it down into a couple of sittings if you like, but try not go over about an hour in total.

Do not use a calculator for any of these questions!

Write your answers on a separate sheet of paper. Always show all your working.

1. Carry out the following calculations. Where you are dividing, use decimal places rather than remainders.
   a) 67495 + 4893   b) 67495 − 4893   c) 60495 − 4896
   d) 89 x 7   e) 472 x 63   f) 476 ÷ 7   g) 3 ÷ 8   h) 6108 ÷ 24

2. Put these numbers in ascending (increasing) order:
   -0.2   3   -1   0.1   0.03   -0.05

3. Round: a) 348.29 to   i) the nearest 10   ii) the nearest whole number
               b) 3.7018 to   i) the nearest tenth   ii) the nearest hundredth
               c) 12.0382 to   i) 1 decimal place   ii) 2 d.p.
               d) 406.728 to   i) 1 significant figure   ii) 3 s.f.
               e) 0.007195 to   i) 1 s.f.   ii) 3 s.f.

4. Work out the value of
   a) $3 + 2 \times 5$ b) $4 - 6 \div 2$ c) $(5 + 2) - (4 + 1)$ d) 3×2^2 e) $(3 \times 4)^2$

5. Find: a) $\frac{1}{4}$ of 60 cm   b) $\frac{3}{5}$ of 80 minutes

6. Cancel the fractions down to find the matching pairs and identify the odd ones out:
   $\frac{2}{5}$ $\frac{4}{12}$ $\frac{3}{8}$ $\frac{1}{4}$ $\frac{6}{15}$ $\frac{5}{16}$ $\frac{2}{8}$ $\frac{7}{21}$

7. Calculate, giving each answer in its lowest terms:
   a) $\frac{3}{5} + \frac{1}{5}$ b) $\frac{3}{5} + \frac{1}{10}$ c) $\frac{3}{4} + \frac{2}{5}$ d) $\frac{3}{4} - \frac{2}{5}$
   e) $\frac{2}{5} \times 3$ f) $\frac{2}{5} \times \frac{1}{3}$ g) $\frac{3}{15} \times \frac{5}{6}$ h) $\frac{2}{5} \div 3$ i) $8 \div \frac{1}{3}$ j) $\frac{3}{5} \div \frac{6}{7}$

8. Find: a) 10% of £36   b) 5% of 40 kg   c) 35% of 120 m

9. Find: a) 0.8 of 6   b) 0.3 x 0.4   c) 0.09 x 1.2
              d) 12 ÷ 0.4   e) 2.8 ÷ 0.2   f) 6 ÷ 0.03   g) 0.144 ÷ 0.12

10. Solve these equations:
    a) $3x + 1 = 19$ b) $4(x - 3) = -20$ c) $5x + 5 = 2x + 8$ d) $20 - 3x = 8$