



Use automatic recall, or mental calculation and estimation to do the following questions. Do not use written methods or calculators.

<p>1. (a) $9 \times 7 =$ (b) $8 \times 6 =$ (c) $3 \times 5 - 3 \times 4 =$</p>	<p>2. (a) $\frac{1}{2} + \frac{1}{4} =$ (b) $\frac{1}{2} - \frac{1}{4} =$</p>
<p>3. Recall the percentage equivalence of (a) $\frac{1}{2}$ (b) $\frac{1}{3}$ (c) $\frac{1}{4}$ (d) $\frac{1}{5}$</p>	<p>4. Recall the simplest fraction equivalence of (a) 0.2 (b) 0.25 (c) 0.3 (d) 0.5 (e) 0.75</p>
<p>5. Recall the decimal equivalence of (a) 25% (b) 30% (c) 75% (d) 150%</p>	<p>6. Explain how to mentally calculate (a) $63 + 28$ (b) $65 - 38$ (c) $47 + 45$ (d) $87 - 39$</p>
<p>7. Explain how to mentally calculate (a) 60×70 (b) 400×800 (c) $500 \div 20$ (d) $3500 \div 700$</p>	<p>8. Explain how to mentally calculate (a) $2\frac{1}{4} + 1\frac{3}{4}$ (b) $1\frac{1}{3} + 3\frac{1}{3}$ (c) $1\frac{1}{2} - 1\frac{1}{4}$</p>
<p>9. Explain why: (a) $3\frac{2}{11} + 7\frac{1}{11}$ cannot be less than 10 (b) $7\frac{11}{12} - 5\frac{1}{4}$ is greater than 2</p>	<p>10. Estimate: (a) $728 + 93$ (b) $1213 + 589 + 719$ (c) $917 - 1388 + 690$</p>
<p>11. Explain why: (a) 597×4 cannot be greater than 2400 (b) $3620 \div 5$ is greater than 700</p>	<p>12. Estimate: (a) 8.9×4.1 (b) 11.1×1.9 (c) $13.9 \div 7.1$</p>

Numerical, algebraic and worded answers.

10. (a) $700 + 100 = 800$
 (b) $1200 + 600 + 700 = 2500$
 (c) $900 + 700 + 1400 = 2000$
 11. (a) $600 \times 4 = 2400$
 (b) $3500 \div 5 = 700$
 12. (a) $9 \times 4 = 36$
 (b) $11 \times 2 = 22$
 (c) $14 \div 7 = 2$

7. (a) $6 \times 7 \times 10 \times 10 = 4200$
 (b) $4 \times 8 \times 100 \times 10 = 320000$
 (c) $50 \div 2 = 25$
 (d) $35 \div 7 = 5$
 8. (a) $2 + 1 + 1 + 4 + 3 + 4 = 14$
 (b) $1 + 3 + 1 + 3 + 1 + 3 = 12$
 (c) $1 + 1 + 1 + 2 - 1 + 1 = 4$
 9. (a) $3 + 7 = 10$
 (b) $7 - 5 = 2$ and $11/12 - 1/4 > 0$

1. (a) 63 (b) 48 (c) 3
 2. (a) $\frac{3}{4}$ (b) $\frac{1}{4}$
 3. (a) 50% (b) 33 $\frac{1}{3}$ 33 $\frac{1}{3}$ 3%
 (c) 25% (d) 20%
 4. (a) $\frac{1}{5}$ (b) $\frac{1}{4}$ (c) $\frac{3}{10}$
 5. (a) 0.25 (b) 0.3
 (c) 0.75 (d) 1.5
 6. (a) $63 + 30 - 2 = 91$
 (b) $65 - 40 + 2 = 17$
 (c) $50 + 45 - 3 = 92$
 (d) $87 - 40 - 1 = 46$