Divide decimals by integers

1. Use place value counters to work out the divisions.
   a) \(8.4 \div 4 = \boxed{2.1}\)
   
   b) \(12.3 \div 3 = \boxed{4.1}\)

2. Work out the division. Draw your answer.
   \(16.4 \div 4 = \boxed{4.1}\)

3. Brett uses short division to work out \(13.2 \div 6\)

4. Work out the divisions.
   a) \(25.6 \div 8 = \boxed{3.2}\)
   b) \(14.8 \div 4 = \boxed{3.7}\)
   c) \(18.48 \div 6 = \boxed{3.08}\)
   d) \(3.89 = 19.45 \div 5\)
   e) \(202.35 \div 3 = \boxed{67.45}\)
   f) \(105.12 \div 9 = \boxed{11.68}\)
5. Esther solves $13.2 \div 4$ by partitioning $13.2$ into two numbers that are easier to divide.

Use Esther’s method to complete the part-whole model and calculation.

a) $9.2 \div 4 = \phantom{0}1.2$  
   $3.6 \div 4 = \phantom{0}0.9$  

b) $16.5 \div 3 = \phantom{0}5.5$  
   $12 \div 3 = \phantom{0}4$  

Compare answers with a partner. Did you partition your numbers in the same way?

6. Work out the divisions.

   a) $9.64 \div 4 = \phantom{0}2.41$  
      $96.4 \div 4 = \phantom{0}24.1$  
      $0.964 \div 4 = \phantom{0}0.241$  
      $9.64 \div 8 = \phantom{0}1.205$

   b) $19.44 \div 9 = \phantom{0}2.16$  
      $19.53 \div 9 = \phantom{0}2.17$  
      $19.62 \div 9 = \phantom{0}2.18$

7. Fill in the missing numbers.

   $3.6 \div 4 = \phantom{0}0.9$  
   $3.6 \div 4 = \phantom{0}0.72 \div 8$

8. Complete the calculation.

   eg. $8.4 \div \phantom{0}2 = 4.2 \div \phantom{0}1$

   How many different solutions can you find?

   What patterns do you notice? Talk about it with a partner.