[Problem 7.1]

Find the decimals for the following fractions. Try to notice a pattern so that you can do it without long division.

(1) 1/9
(2) 2/9
(3) 2/3
(4) 4/99
(5) 12/99
(6) 5/33
(7) 5/999
(8) 100/999
(9) 7/333

[Problem 7.2]

(1) How many different ways can you rearrange the letters in "WALDEN"?
(2) How many different ways can you rearrange the letters in "SCHOOL"?
(3) How many different ways can you rearrange the letters in "WALDEN SCHOOL"?

[Problem 7.3]

Connect these 9 dots with 4 straight lines:

• • •
• • •
• • •

[Problem 7.4]

Game: 20 questions, where the answer must be a number.

ANSWER KEY
1. 0.111…, 0.222…, 0.666…, 0.040404…, 0.121212…, 0.151515…, 0.100100100…, 0.021021021…
2. 6!, 6!/2!, 6!*6!/2!
3.