

New Connections Questions

Mathematics for Elementary Teachers: An Activity Approach

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Activity Set 6.2

1. *Math Concepts:* For each of the following; draw a sketch to show how a Decimal Squares model is used to compute the sum or difference and explain how the model matches the standard paper and pencil algorithm. Decimal Square paper is available for download at the Online Learning Center.
 - a. $0.3 + 0.5$
 - b. $0.4 + 0.65$
 - c. $0.85 - 0.2$
 - d. $0.7 - 0.15$
2. Connections 6.2 #3 from Activity Book: For each of the following, draw a sketch to show how a Decimal Squares model is used to compute the product or quotient and explain how the model matches the standard paper-and-pencil algorithm. Decimal Square paper is available for download at the Online Learning Center.
 - a. $.2 \times .5$
 - b. 1.2×1.5
 - c. $.75 \div .15$
3. Connection 6.2 #4 from Activity Book: In activity 10, the measurement concept of division is used as an approach to divide one decimal by another decimal. However, another way to compute the quotient is to multiply the dividend and the divisor by the same power of 10 and just do whole number division. For example, $.75 \div .15 = 75 \div 15$, $.8 \div .2 = 8 \div 2$, and $.70 \div .05 = 70 \div 5$. Use the Decimal Square model to explain why division of decimals like these can be replaced by division involving whole numbers.

Elementary school teachers--Training of. | Mathematics--Study and teaching (Elementary) Classification: LCC QA135.6 .A225 2017 | DDC 372.7--dc23 LC record available at <https://lcn.loc.gov/2017000441>. British Library Cataloguing-in-Publication Data A catalogue record for this book is available from the British Library.Â It addresses several recommendations for mathematics teacher preparation and standards for teaching school mathematics.Â One of the topics directly linked to geometry is measurement, an activity that is situated at the very origin of mathematics.Â It is argued that this approach allows for the preservation of rigor as the main element of mathematical practice.