

## Reasoning and Problem Solving Multiply Decimals by Integers

### Developing

- 1a.  $5.3 \times 3$  is the odd one out because this equals 15.9. The other calculations equal 13.6.
- 2a.  $4.1 \times 5 = 20.5$ . The cards 5.2, 21.5 and 4 are not needed.
- 3a. Mia has added the numbers instead of multiplying them. The correct answer is 28.8.

### Expected

- 4a.  $4.88 \times 6$  is the odd one out because this equals 29.28. The other calculations equal 25.44.
- 5a.  $7.31 \times 5 = 36.55$ . The cards 7.29, 6, 8.28 35.65 and 8 are not needed.
- 6a. Fay has not multiplied the tenths and hundredths by 6. She has worked out  $5 \times 6 = 30$  then added the decimal places. The correct answer is 32.82.

### Greater Depth

- 7a.  $6.043 \times 8$  is the odd one out because this equals 48.344. The other calculations equal 24.174.
- 8a.  $7.607 \times 9 = 68.463$ . The cards 53.468, 7.706, 8, 6.706 and 69.534 are not needed.
- 9a. Bella has 0 tenths in her answer. She has forgotten to carry the 6 tenths over. The correct answer is 35.679.

## Reasoning and Problem Solving Multiply Decimals by Integers

### Developing

- 1b.  $9.1 \times 2$  is the odd one out because this equals 18.2. The other calculations equal 17.6.
- 2b.  $7.3 \times 3 = 21.9$ . The cards 6.3, 24.9 and 4 are not needed.
- 3b. Alfie has not multiplied the tenths by 5. He has worked out  $3 \times 5 = 15$  then added the decimal place. The correct answer is 16.5.

### Expected

- 4b.  $3.93 \times 7$  is the odd one out because this equals 27.51. The other calculations equal 22.24.
- 5b.  $8.43 \times 6 = 50.58$ . The cards 32.21, 5.85, 8, 5 and 46.71 are not needed.
- 6b. Seth has written the tenths and hundredths in the incorrect order. The correct answer is 48.37

### Greater Depth

- 7b.  $5.031 \times 7$  is the odd one out because this equals 35.217. The other calculations equal 38.008.
- 8b.  $6.084 \times 9 = 54.756$ . The cards 57.762, 7, 6.804, 47.268 and 6.408 are not needed.
- 9b. Jason has not included the 0 tenths in his answer. The correct answer is 32.016.