

Multiply decimals by integers



1 Use place value counters to solve the calculations.

a) $3.2 \times 3 =$

| Ones | Tenths |
|-------|---------|
| 1 1 1 | 0.1 0.1 |
| 1 1 1 | 0.1 0.1 |
| 1 1 1 | 0.1 0.1 |

b) $4.6 \times 2 =$

| Ones | Tenths |
|---------|----------------------------|
| 1 1 1 1 | 0.1 0.1 0.1 0.1 0.1 0.1 |
| 1 1 1 1 | 0.1 0.1 0.1 0.1 0.1 0.1 |

2 Solve the multiplication. Draw your answer.

$12.2 \times 3 =$

| Tens | Ones | Tenths |
|------|------|--------|
| | | |

3 Nijah uses long multiplication to solve 3.72×3

| | | | | | |
|--|---|---|---|---|---|
| | | | | | |
| | | 3 | · | 7 | 2 |
| | x | | | | 3 |
| | | 0 | · | 0 | 6 |
| | | 2 | · | 1 | 0 |
| | | 9 | · | 0 | 0 |
| | 1 | 1 | · | 1 | 6 |

Use long multiplication to work out the calculations.

a)

| | | | | | |
|--|---|---|---|---|---|
| | | | | | |
| | | 4 | · | 8 | 6 |
| | x | | | | 4 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

b)

| | | | | | |
|--|---|---|---|---|---|
| | | | | | |
| | | 2 | · | 0 | 9 |
| | x | | | | 6 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

4 Work out the multiplications.

a) $5.2 \times 4 =$

d) = 2.34×3

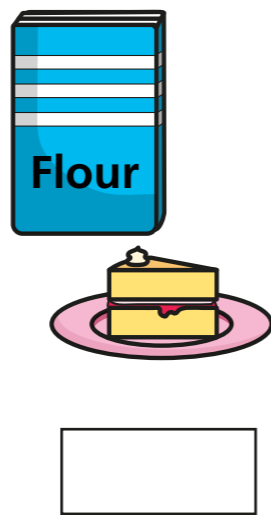
b) $14.3 \times 3 =$

e) $11.505 \times 4 =$

c) $6 \times 9.1 =$

f) $9.602 \times 6 =$

- 5 0.25 kg of flour is needed to make one cake.
How much flour is needed to make four cakes?



- 6 Work out the multiplications.

a) $7.2 \times 2 =$

$7.2 \times 4 =$

$14.4 \times 4 =$

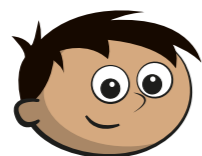
$7.2 \times 8 =$

b) $= 3.45 \times 3$

$= 34.5 \times 3$

$= 345 \times 3$

- 7 Amir is solving 3.4×4



To solve this, I did 34×4 , which was 136. Then I multiplied my answer by 10 to get an answer of 1,360.

Do you agree with Amir? _____

Explain why.

- 8 Use the digits 1, 2, 3 and 4 once each to create a calculation.

| | | | | |
|---|---|---|---|--|
| 1 | 2 | 3 | 4 | |
| | · | | × | |

- a) How many different products can you make?

- b) What is the greatest possible product?

- c) What is the smallest possible product?

- d) What is the product closest to 12?

Compare answers with a partner.

