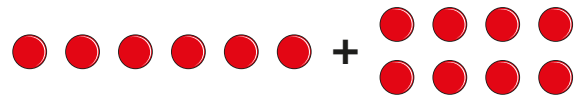


Order of operations

1 a) Explain how the counters illustrate $6 + 2 \times 4$



b) Work out $6 + 2 \times 4$

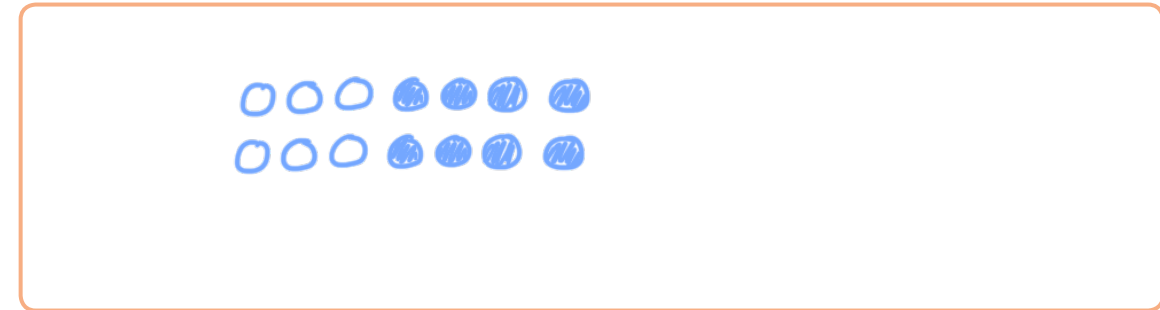
14

c) Which part of the calculation did you do first?

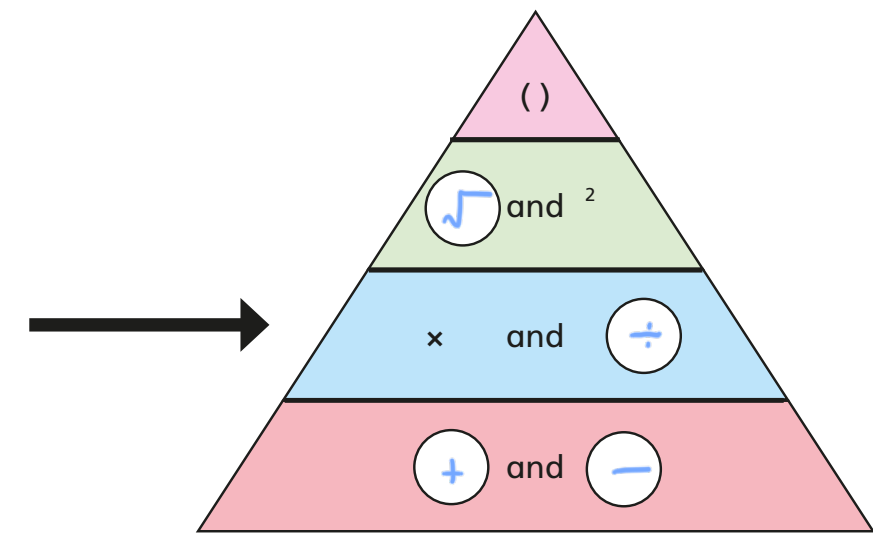
2 x 4

2 a) Which diagram represents $2 + 7^2$?
Tick your answer.

b) Draw a diagram to represent $2 \times (3 + 4)$



3



- a) Fill in the gaps in the diagram with operations in order of their priority.
- b) Discuss why the operations in the row indicated by the arrow have equal priority.

4

Underline the part of the calculation that you will do first.
Complete each calculation.

- a) $4 + \underline{3} \times 5 = 19$
- b) $\underline{12} \div 4 + 2 = 5$
- c) $7 + \underline{3^2} \times 2 = 25$
- d) $(\underline{4 + 3}) \times 5 = 35$
- e) $9 \times \underline{\sqrt{16}} \div 2 = 18$
- f) $\underline{36} \div 12 \div 3 = 1$

- 5 Explain the mistakes that have been made in these calculations and work out the correct answer.

a) $11 + 2 \times 3 = 39$

11+2 was calculated first. It should be $11+2 \times 3 = 17$

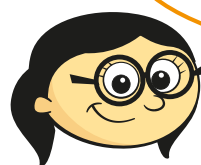
b) $4 \times 2 + 2 \times 3 = 30$

Worked from left to right. It should be $4 \times 2 + 2 \times 3 = 14$

c) $12 \div 2^2 = 36$

Did $12 \div 2$ first then squared it. It should be $12 \div 2^2 = 3$

- 6 Annie is working out $6 - 5 + 2 - 3$



I do the adding first: $5 + 2 = 7$.
So $6 - 7 - 3$ is equal to -4

What mistake has Annie made?

What should she have done?

- 7 Complete the calculations.

a) $4 \times 5 + 3 \times 8 =$

b) $(5 - 2) \div (10 - 7) =$

- 8 Insert brackets to make the calculations correct.

a) $(4 + 7) \times 2 - 7 = 15$

c) $3 \times (25 - 13) + 4 = 40$

b) $(5 + 3) \times (4 + 2) = 48$

d) $5 + 3 \times (4 + 2) = 23$

- 9 Work out the calculation.

$14 \times 3 + 3 \times 67 =$

Discuss your method with a partner. Is there a more efficient method?

- 10 Write +, -, \times or \div to complete the calculation.

1 2 3 4 5 6 7 8 9 = 100