

Mathematics

Decrease by a Percentage

Mr Millar



Independent task



Order the results in size.

Decrease 300
by 40%

Increase 150
by 30%

Decrease 260
by 20%

Decrease 250
by 15%

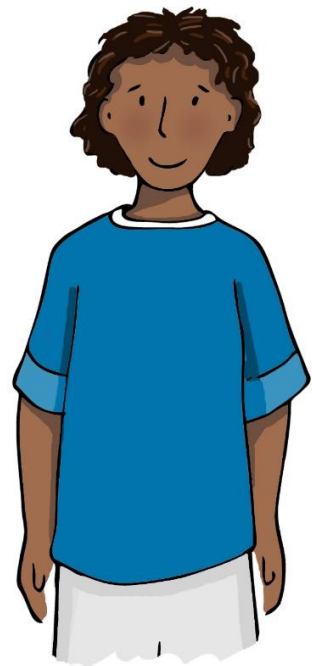
Increase 180
by 6%

Decrease 200
by 4%



Explore

Yasmin and Zaki are arguing over what happens when you increase and then decrease a number by the same amount



If I increase a number by 20%, and then decrease it by 20%, I will get the same number I started with.

I disagree, if you try it with 100 you get a lower number than what you started with



Answers



Independent task



Order the results in size.

Decrease 300
by 40%

$$300 \times 0.6 = 180$$

Increase 150
by 30%

$$150 \times 1.3 = 195$$

Decrease 260
by 20%

$$260 \times 0.8 = 208$$

Decrease 250
by 15%

$$250 \times 0.85 = 212.5$$

Increase 180
by 6%

$$180 \times 1.06 = 190.8$$

Decrease 200
by 4%

$$200 \times 0.96 = 192$$



Explore

Yasmin and Zaki are arguing over what happens when you increase and then decrease a number by the same amount



If I increase a number by 20%, and then decrease it by 20%, I will get the same number I started with.

If you increase 100 by 20% you get 120 (100×1.2)

If you then decrease 120 by 20% you get 96 (120×0.8)

Yasmin is correct!

I disagree, if you try it with 100 you get a lower number than what you started with

