Use the formula base $\times$ height to calculate the area of a parallelogram.

1) I am thinking of a parallelogram with side lengths that are whole numbers.


It has an area of $84 \mathrm{~cm}^{2}$.
Its height measures between 10 cm and 30 cm .
Its base measures between 2 cm and 10 cm .

Give the dimensions of all the possible parallelograms I could be thinking of.
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2) DIY Dan is decorating his bathroom with these tiles:


One wall of his bathroom has an area of $4800 \mathrm{~cm}^{2}$.

a) How many tiles will DIY Dan need to decorate this wall?

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b) DIY Dan spends another $£ 175$ decorating the rest of his bathroom with tiles. How many more tiles did DIY Dan use?

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1) The parallelogram has an area of $84 \mathrm{~cm}^{2}$ so it could have the following dimensions:
base $=b$ and height $=h$
$b=3 \mathrm{~cm}$ and $h=28 \mathrm{~cm}$
$b=4 \mathrm{~cm}$ and $h=21 \mathrm{~cm}$
$b=6 \mathrm{~cm}$ and $h=14 \mathrm{~cm}$
$b=7 \mathrm{~cm}$ and $h=12 \mathrm{~cm}$
a) Each tile has an area of $240 \mathrm{~cm}^{2}$.
$4800 \div 240=20$
DIY Dan needs 20 tiles for this wall.
b) $£ 175 \div £ 3.50=50$

Dan used 50 more tiles to decorate the rest of his bathroom.

