

SOL HW 1.2

September 19, 2016 2:05 PM

Name: _____

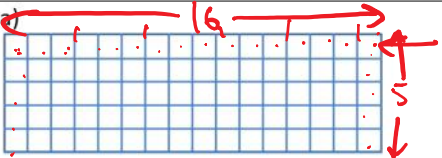
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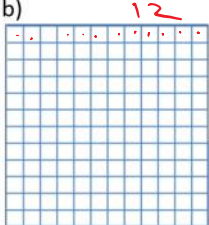
Math 8 Homework Assignment Section 1.2 Multiplying Integers with Area Model:

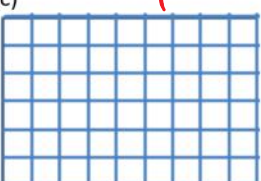
1. Multiply each of the following without a calculator:

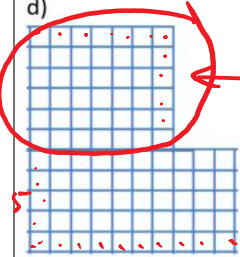
a) 8×10 80	b) 9×11 99	c) 3×12 36	d) 4×11 44
e) 4×13 52	f) 5×12 60	g) 4×20 80	h) 6×13 78 $\begin{array}{r} 60 \\ 18 \\ \hline 78 \end{array}$
i) 9×27 $\begin{array}{r} 180 \\ 63 \\ \hline 243 \end{array}$	j) 8×26 $\begin{array}{r} 160 \\ 48 \\ \hline 208 \end{array}$	k) 7×17 $\begin{array}{r} 70 \\ 49 \\ \hline 119 \end{array}$	l) 4×43 $\begin{array}{r} 160 \\ 12 \\ \hline 172 \end{array}$

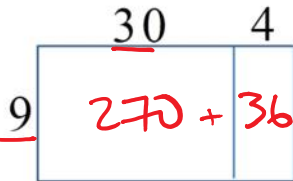
2. If each little square has a side length of 1, then what is the area of each of the following shapes?

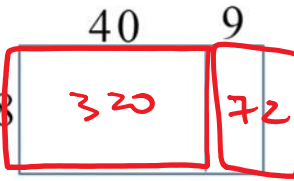
a) 
 $16 \times 5 = 80$

b) 
 $12 \times 12 = 144$

c) 
 54

d) 
 $6 \times 7 = 42$
 $5 \times 10 = 50$
 $= 92$

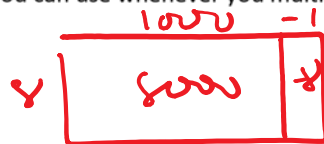
e) 
 $270 + 36 = 306$

f) 
 $320 + 72 = 392$

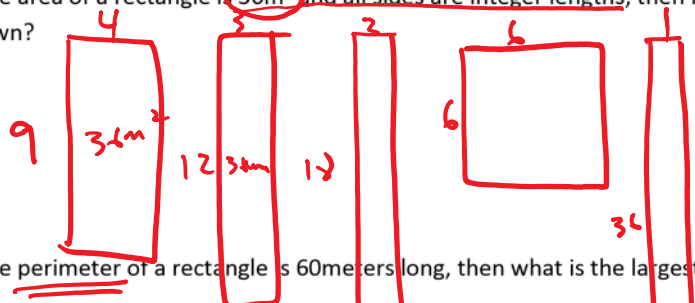
3. Multiply each of the following using the area model:

a) 9×21 $180 + 9 = 189$	b) 6×18 $60 + 48 = 108$	c) 8×29 $160 + 72 = 232$
d) 7×36 $210 + 42 = 252$	e) 7×49 $280 + 63 = 343$	f) 3×28 $60 + 24 = 84$
g) 8×71 568	h) 7×64 $420 + 28 = 448$	i) 3×89 $240 + 27 = 267$

4. Identify one strategy that you can use whenever you multiply a number with 9, 99, 999, and 9999. Explain your strategy.



5. If the area of a rectangle is $36m^2$ and all sides are integer lengths, then how many ways can this rectangle be drawn?



6. If the perimeter of a rectangle is 60 meters long, then what is the largest possible area?

