Pg. 140

#8

e) $160 \rightarrow 2 \times 2 \times 2 \times 2 \times 2 \times 5$

$672 \rightarrow 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 7$

$2 \times 2 \times 2 \times 2 \times 2$

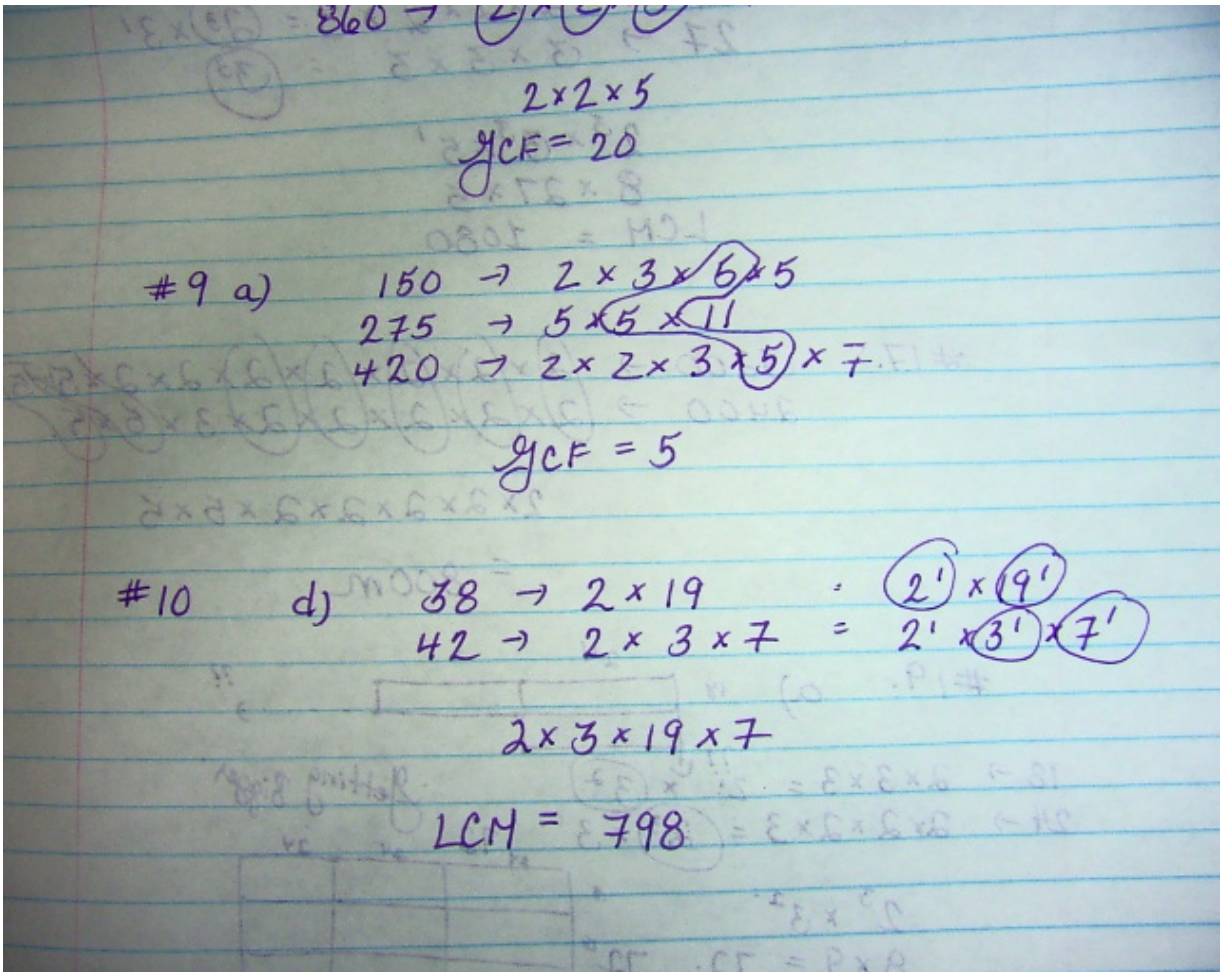
GCF = 32

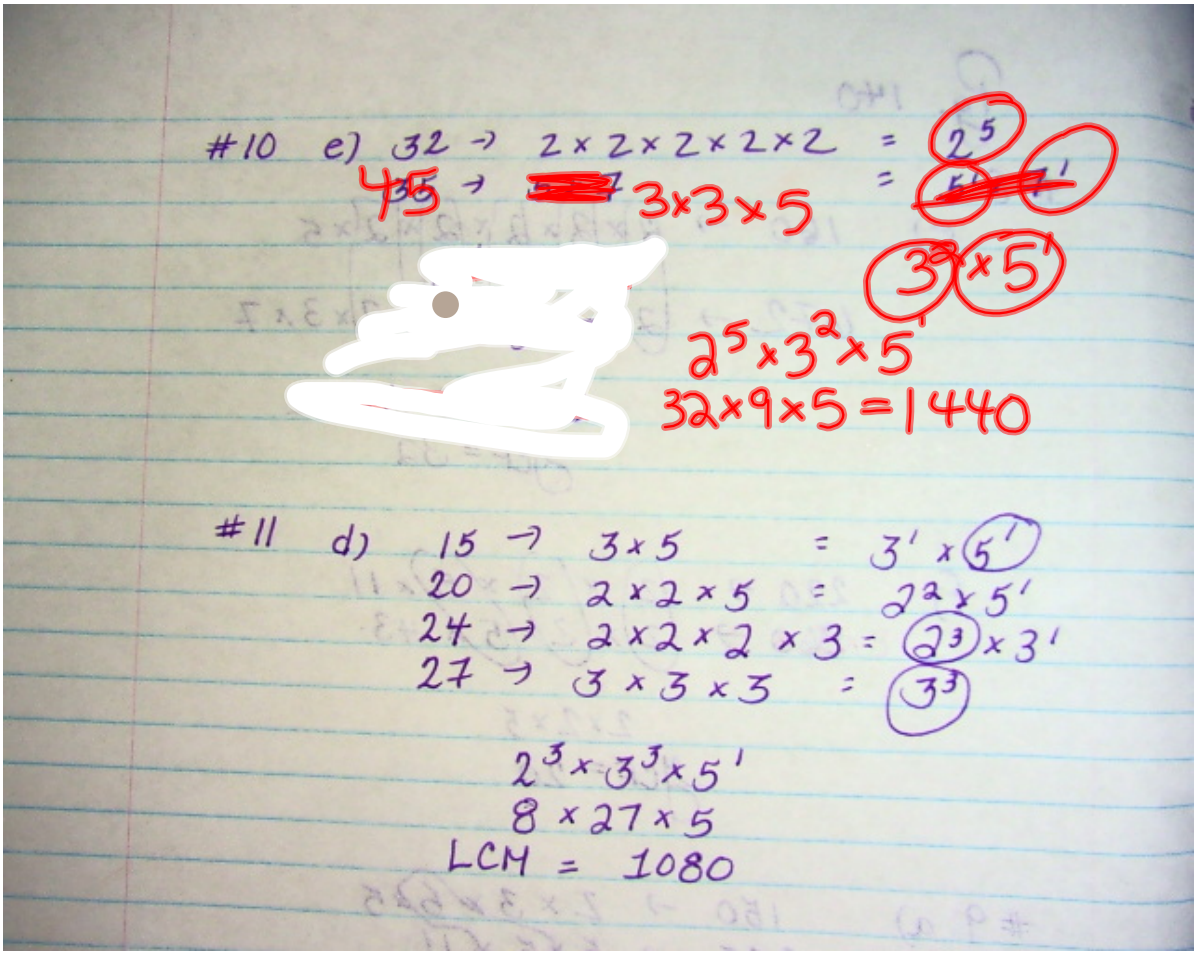
f) $220 \rightarrow 2 \times 2 \times 5 \times 11$

$860 \rightarrow 2 \times 2 \times 5 \times 43$

$2 \times 2 \times 5$

GCF = 20


860 →
2×2×5
GCF = 20
#9 a)
150 → 2×3×5×5
275 → 5×5×11
420 → 2×2×3×5×7
GCF = 5
#10 d)
38 → 2×19 = 2¹×19¹
42 → 2×3×7 = 2¹×3¹×7¹
2×3×19×7
LCM = 798


#10 e) 32 → 2×2×2×2×2 = 2^5
45 → 3×3×5
3^2 × 5^1
2^5 × 3^2 × 5
32×9×5 = 1440
#11 d) 15 → 3×5 = 3^1 × 5^1
20 → 2×2×5 = 2^2 × 5^1
24 → 2×2×2×3 = 2^3 × 3^1
27 → 3×3×3 = 3^3
2^3 × 3^3 × 5^1
8 × 27 × 5
LCM = 1080

$8 \times 27 \times 5$

LCM = 1080

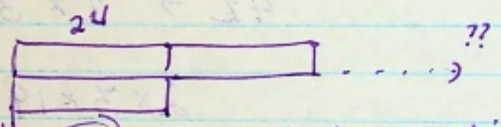
#17. 3200 → $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 5 \times 5$

2400 → $2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 5 \times 5$

$2 \times 2 \times 2 \times 2 \times 2 \times 5 \times 5$

$= 800m$

#19. a)



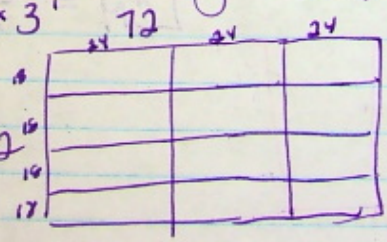
18 → $2 \times 3 \times 3 = 2^{??} \times 3^2$

24 → $2 \times 2 \times 2 \times 3 = 2^3 \times 3^1$

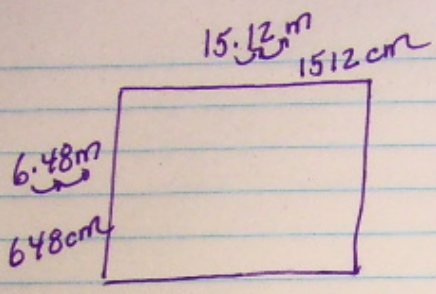
Getting Bigger.

$2^3 \times 3^2$

$8 \times 9 = 72.$



(b)



→ Change to centimeters first !

$648cm \times 1512cm = 979,776 cm^2$

$18cm \times 24cm = 432 cm^2$

$979\,776 \div 432 = 2,268$ tiles

Yes ☺