Homework?

p194 #8(a) is $x = \frac{1}{3}$ a solution?

= does it satisfy the eq.

LS: $3\left(\frac{1}{3}\right) - 7$

$= \frac{3}{1}\left(\frac{1}{3}\right) - 7$

$= \frac{3}{3} - 7$

$= 1 - 7$

$= -6$

RS $= -6$

LS = RS

$\therefore x = \frac{1}{3}$ is the solution.

true

LS = RS

#11) p194 a)

$\left(\frac{-0.7 - 2 + 9}{5 - 1}\right) \div \left(\frac{3.1 \times 4}{5 \times 2} - 6.1\right)$

$= (6.3) \div (12.4 - 6.1)$

$= 6.3 \div (6.3)$

$= 1$

B
E
DM
AS

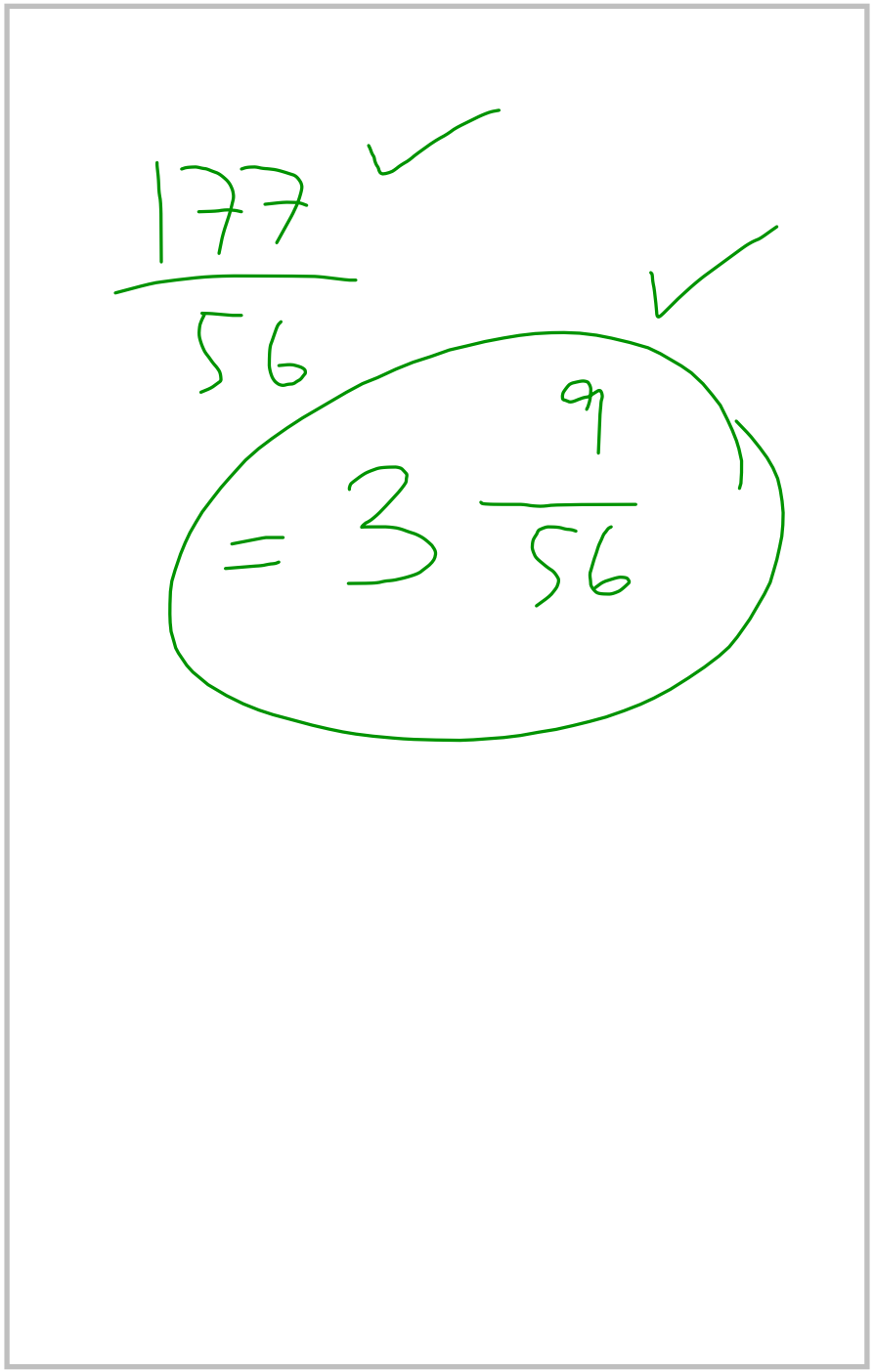
5e)

$$= \left(\frac{27}{4} + \frac{5}{8}\right) \div \frac{7}{3}$$

$$= \left(\frac{54}{8} + \frac{5}{8}\right) \div \frac{7}{3}$$

$$= \frac{59}{8} \times \frac{3}{7}$$

$$= \frac{177}{56}$$


177
56
= 3 9/56

5c)

$$= -\frac{7}{3} + \frac{-3}{4} \times \frac{-11}{6}$$

$$= -\frac{7}{3} \overset{\times 8}{} + \frac{33}{24}$$

$$= \frac{-56}{24} + \frac{33}{24}$$

$$= \boxed{\frac{-23}{24}}$$

3.11 Exponents Laws p.227

Ex.1 Simplify ← # of factors

a) $3^2 \times (3^7)$

$= 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3$

$= 3^9$

b) $4^2 \times 4^3$

$= 4 \times 4 \times 4 \times 4 \times 4$

$= 4^5$

c) $7^3 \times 7^5$

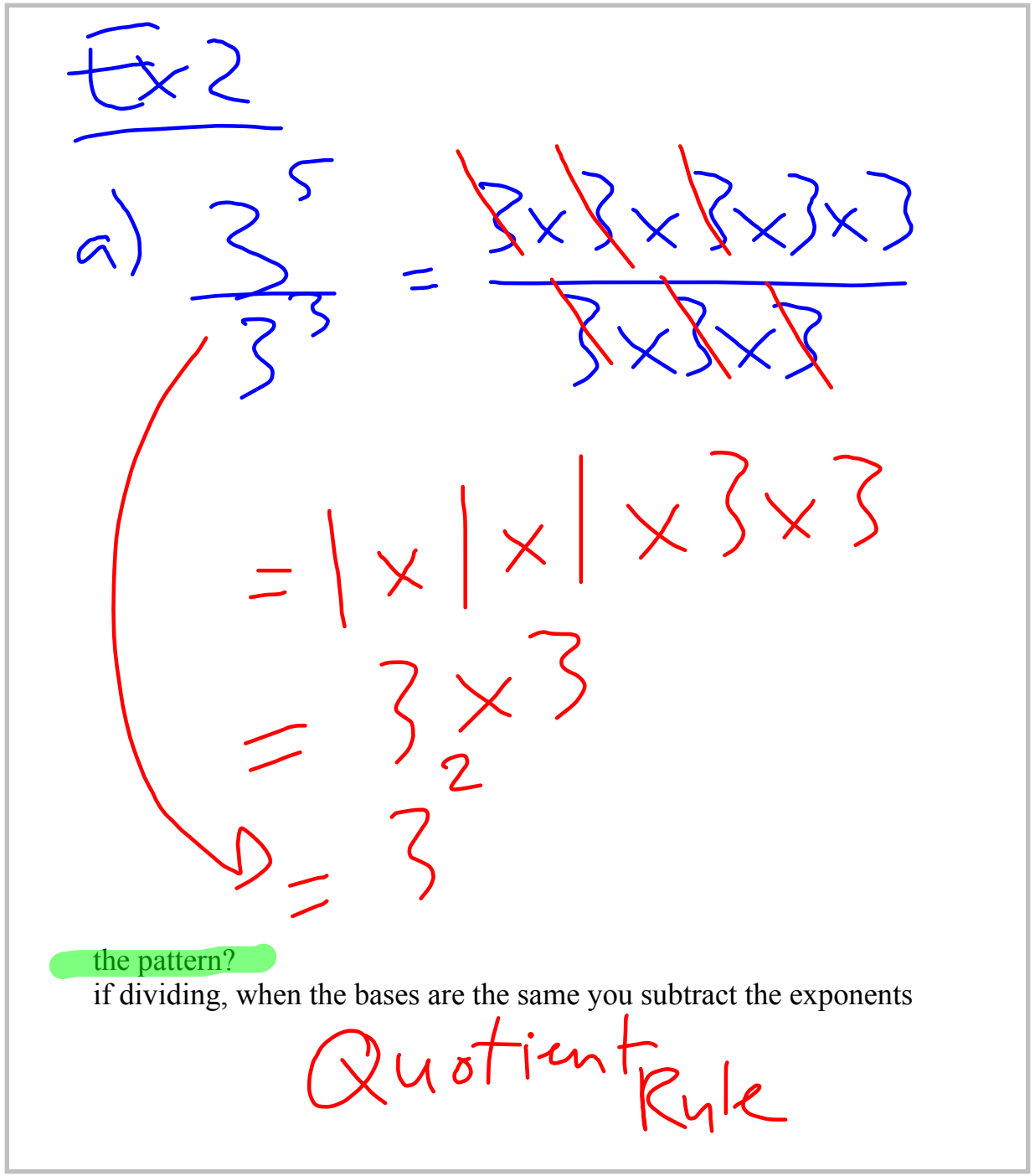
$= 7 \times 7 \times 7 \times 7 \times 7 \times 7 \times 7 \times 7$

$= 7^8$

the pattern?

if multiplying, when the bases are the same you can add the exponents

Product Rule


Ex 2
a) $\frac{3^5}{3^3} = \frac{3\times3\times3\times3\times3}{3\times3\times3}$
$= 1\times1\times3\times3$
$= 3\times3$
$= 3^2$
$= 3$
the pattern?
if dividing, when the bases are the same you subtract the exponents
Quotient Rule

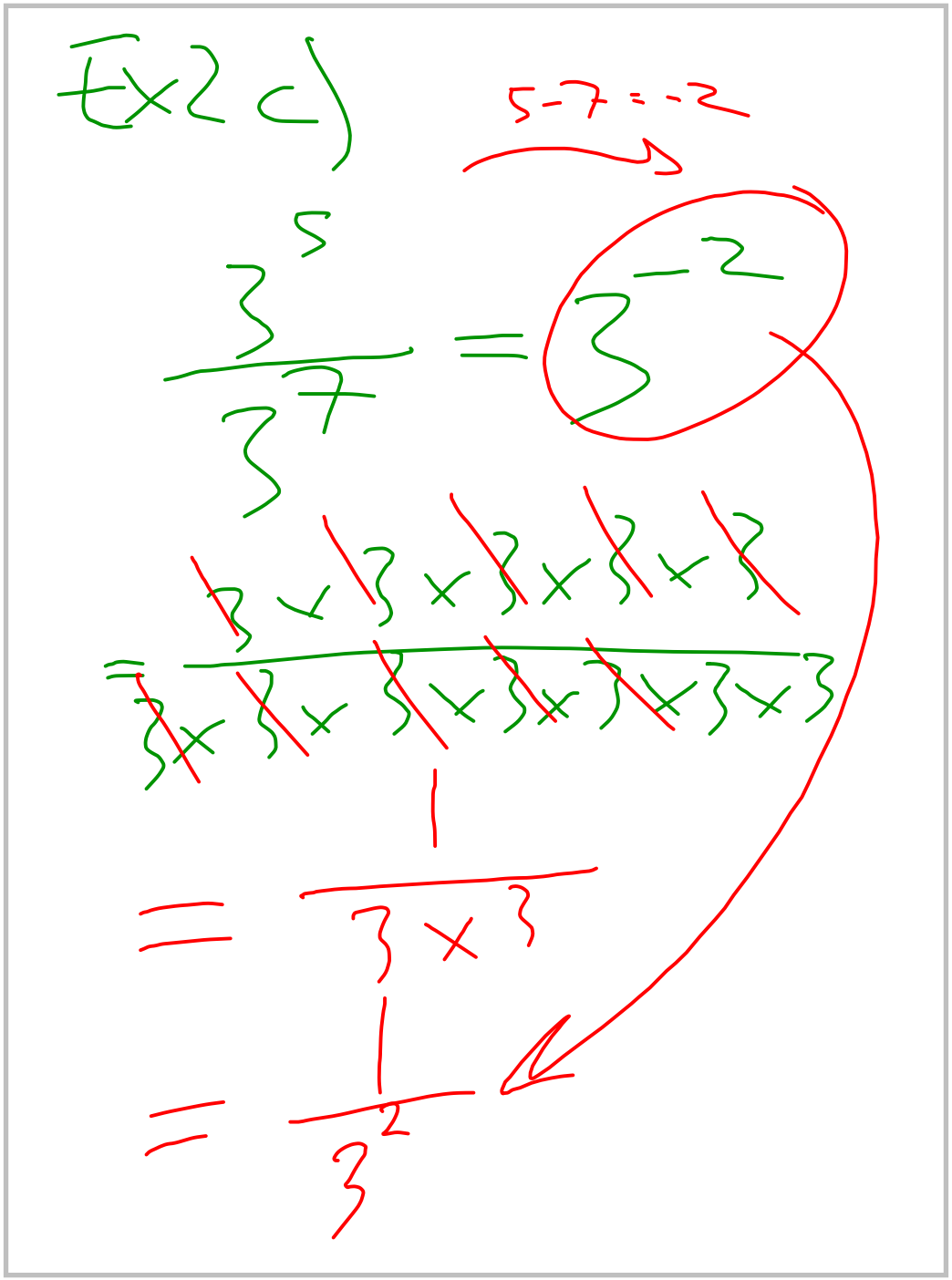
Ex 2

b) $\frac{3^4}{3^4} = 3^0 = 1$

zero exponents will always equal 1

simplify

evaluate


Ex 2 c)
5 - 7 = -2

Ex. 3

a) $(3^2)^3$

$= 3^2 \times 3^2 \times 3^2$

$= 3\times3 \times 3\times3 \times 3\times3$

$= 3^6$

the pattern?

if you have a power to another power, you multiply the exponents

Power Rule

p229
q1-8odd

(6b) $\frac{4^6}{4^3} = 4^{6-3} = 4^3$ simplify

$= 4 \times 4 \times 4$

$= 64$ evaluate