

Worksheet

09/16/2020

Free on dw-math.com

Problem quickname: 3140

1)

Which statements are true? Check them.

Quick:
3140

a)

$$\begin{aligned} \sqrt{\frac{|Q'X'|}{|QX|}} &= \frac{|DX'|}{|DX|} \\ \times \frac{|QX|}{|Q'X'|} &= \frac{|DX'|}{|DX|} \\ \times \frac{|Q'D|}{|DX|} &= \frac{|DX'|}{|DX|} \\ \sqrt{\frac{|Q'X'|}{|QX|}} &= \frac{|DQ'|}{|DQ|} \end{aligned}$$

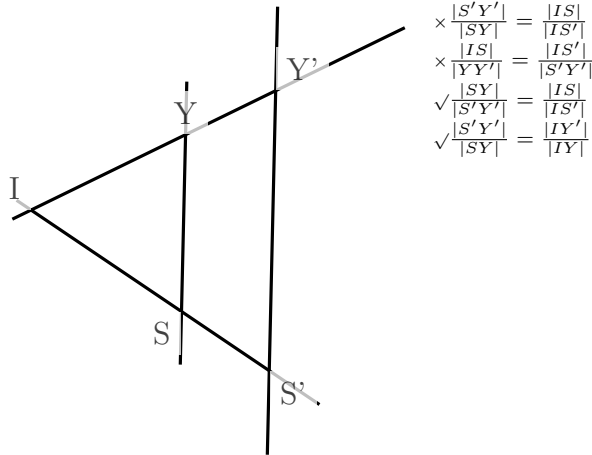
b)

$$\begin{aligned} \sqrt{\frac{|H'K'|}{|HK|}} &= \frac{|LK'|}{|LK|} \\ \times \frac{|HK|}{|H'K'|} &= \frac{|LH'|}{|LH|} \\ \sqrt{\frac{|HK|}{|H'K'|}} &= \frac{|LK|}{|LK'|} \\ \sqrt{\frac{|H'K'|}{|HK|}} &= \frac{|LH'|}{|LH|} \end{aligned}$$

c)

$$\begin{aligned} \sqrt{\frac{|Y'I'|}{|YI|}} &= \frac{|FI'|}{|FI|} \\ \sqrt{\frac{|YI|}{|Y'I'|}} &= \frac{|FY|}{|FY'|} \\ \sqrt{\frac{|YI|}{|Y'I'|}} &= \frac{|FI|}{|FI'|} \\ \times \frac{|YI|}{|Y'I'|} &= \frac{|FY'|}{|FY|} \end{aligned}$$

d)



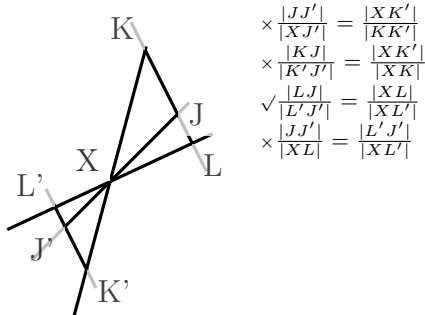
$$\begin{aligned} \times \frac{|S'Y'|}{|SY|} &= \frac{|IS|}{|IS'|} \\ \times \frac{|IS|}{|YY'|} &= \frac{|IS'|}{|S'Y'|} \\ \sqrt{\frac{|SY|}{|S'Y'|}} &= \frac{|IS|}{|IS'|} \\ \sqrt{\frac{|S'Y'|}{|SY|}} &= \frac{|IY'|}{|IY|} \end{aligned}$$

2)

Only one statement is true for each drawing. Which one?

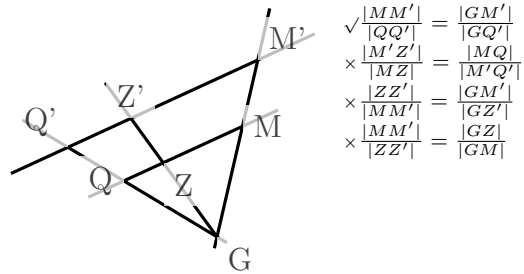
Quick:
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a)



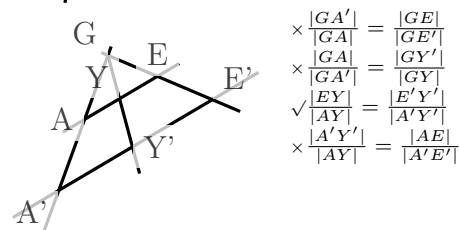
$$\begin{aligned} \times \frac{|JJ'|}{|XJ'|} &= \frac{|XK'|}{|KK'|} \\ \times \frac{|KJ|}{|K'J'|} &= \frac{|XK'|}{|XK|} \\ \sqrt{\frac{|LJ|}{|L'J'|}} &= \frac{|XL|}{|XL'|} \\ \times \frac{|J'J|}{|XL|} &= \frac{|L'J'|}{|XL'|} \end{aligned}$$

b)



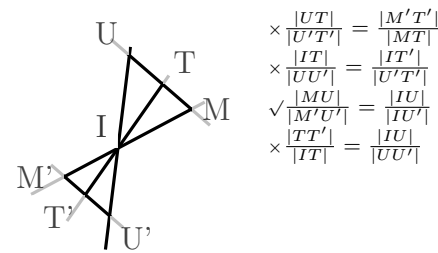
$$\begin{aligned} \sqrt{\frac{|MM'|}{|QQ'|}} &= \frac{|GM'|}{|GQ'|} \\ \times \frac{|M'Z'|}{|MZ|} &= \frac{|MQ|}{|M'Q'|} \\ \times \frac{|ZZ'|}{|MM'|} &= \frac{|GM'|}{|GZ'|} \\ \times \frac{|MM'|}{|ZZ'|} &= \frac{|GZ|}{|GM|} \end{aligned}$$

c)



$$\begin{aligned} \times \frac{|GA'|}{|GA|} &= \frac{|GE|}{|GE'|} \\ \times \frac{|GA|}{|GA'|} &= \frac{|GY|}{|GY'|} \\ \sqrt{\frac{|EY|}{|AY|}} &= \frac{|E'Y'|}{|A'Y'|} \\ \times \frac{|A'Y'|}{|AY|} &= \frac{|AE|}{|A'E'|} \end{aligned}$$

d)



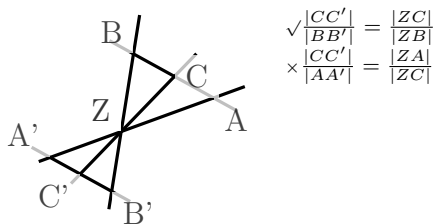
$$\begin{aligned} \times \frac{|UT|}{|U'T'|} &= \frac{|M'T'|}{|MT|} \\ \times \frac{|IT|}{|U'U'|} &= \frac{|IT'|}{|U'T'|} \\ \sqrt{\frac{|MU|}{|M'U'|}} &= \frac{|IU|}{|IU'|} \\ \times \frac{|TT'|}{|IT|} &= \frac{|IU|}{|U'U'|} \end{aligned}$$

3)

Only one statement is true for each drawing. Which one?

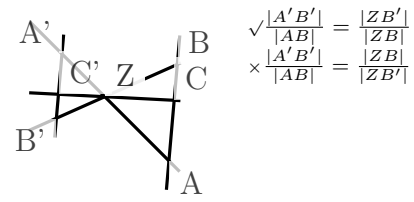
Quick:
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a)

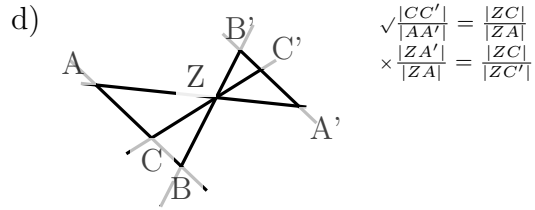
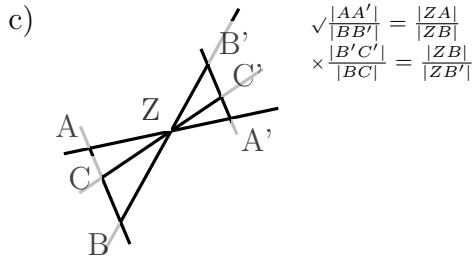


$$\begin{aligned} \sqrt{\frac{|CC'|}{|BB'|}} &= \frac{|ZC|}{|ZB|} \\ \times \frac{|CC'|}{|AA'|} &= \frac{|ZA|}{|ZC|} \end{aligned}$$

b)



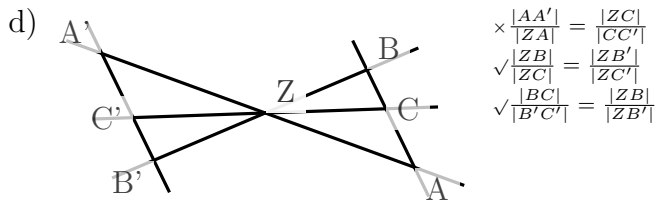
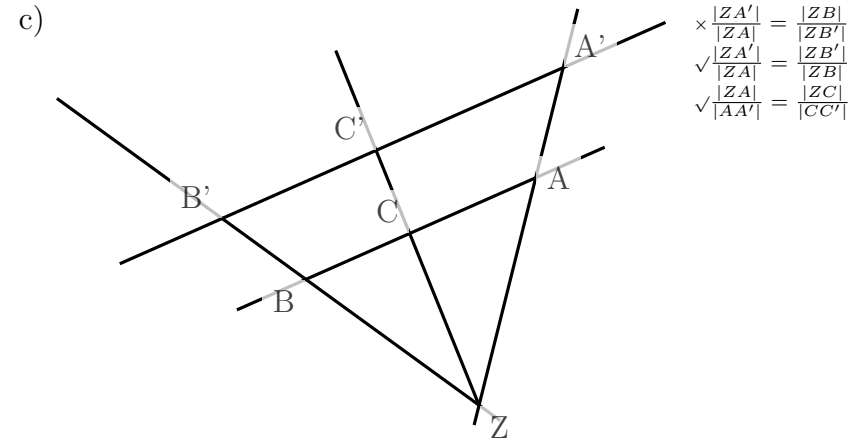
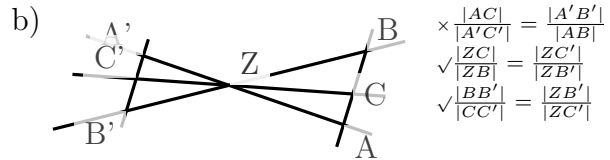
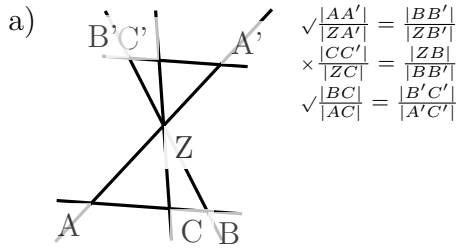
$$\begin{aligned} \sqrt{\frac{|A'B'|}{|AB|}} &= \frac{|ZB'|}{|ZB|} \\ \times \frac{|A'B'|}{|AB|} &= \frac{|ZB|}{|ZB'|} \end{aligned}$$



4)

Which statements are true? Check them.

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Good Luck!