Math 4109 Quiz 1 Name:

1. A = { x Ɛ ℝ **|** x ≥ 4 }

B = { x Ɛ ℝ **| -1 ≤ x < 6** }

Perform the following set operations: A’\ B

Graph the detailed operation below.

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

Give your answer in interval form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A = -∞, 0]

B = [0,3]

C = ]-2,2]

Perform the following set operations: (A ∪ C) \ B

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

Give your answer in set-builder notation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A = { x Ɛ ℝ **|** 3 < x ≤ 6 }

B = { x Ɛ ℝ **| x ≥ 4** }

Perform the following set operations: A ∩ B’

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

Give your answer in interval notation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A = [0,3[

B = ]0,4]

C = ]2,4[

Perform the following set operations: (A∩B) ∪ C

Graph the detailed operation below:

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

[https://mcdn1.teacherspayteachers.com/thumbitem/Blank-Number-line-banner-96-by-85-1077699/original-1077699-1.jpg](https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=https://www.teacherspayteachers.com/Product/Blank-Number-line-banner-96-by-85-1077699&ei=1-H9VJT5BsGgyASb2IF4&bvm=bv.87611401,d.aWw&psig=AFQjCNHk1nhDeGE7KPVmmcIHF2KrLTRXPg&ust=1426010931979302)

Give your answer in set-builder notation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_