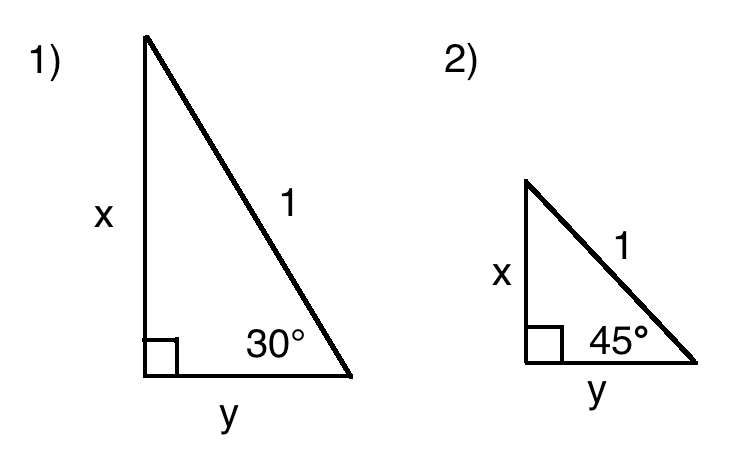
13.3

Unit Circle

Warm-up

Solve for x and y



I do:

Use the unit circle to find the exact value of each trigonometric function.

1. sin210

cos210

tan210

|  |  |
| --- | --- |
| Find the coordinates for the angle on the unit circle. | Macintosh HD:Users:wyen:Desktop:Screen Shot 2015-03-12 at 8.21.01 AM.png |
|  | = |

We try:

Use the unit circle to find the exact value of each trigonometric function.

csc

sec

cot

|  |  |
| --- | --- |
| Find the coordinates for the angle on the unit circle. | Macintosh HD:Users:wyen:Desktop:Screen Shot 2015-03-12 at 8.21.01 AM.png |
|  |  |

You Try:

Even Write, Odd Talk

Use the unit circle to find the exact value of each trigonometric function.

I do:

Use a reference angle to find the exact value of sine, cosine, and tangent of 225

|  |  |
| --- | --- |
| Find reference angle. | Macintosh HD:Users:wyen:Desktop:Screen Shot 2015-03-12 at 9.19.40 AM.png |
| Find coordinates of reference angle. | Macintosh HD:Users:wyen:Desktop:Screen Shot 2015-03-12 at 9.20.22 AM.png |
| Adjust signs for the quadrant.  Q1(+,+)  Q2(-,+)  Q3(-,-)  Q4(+,-) | 225 |
| Solve for  sin=y  =x  tan= | Sin225  Cos=  Tan2251 |

We do:

Use a reference angle to find the exact value of sine, cosine, and tangent of 150

|  |  |
| --- | --- |
| Find reference angle. |  |
| Find coordinates of reference angle. |  |
| Adjust signs for the quadrant.  Q1(+,+)  Q2(-,+)  Q3(-,-)  Q4(+,-) |  |
| Solve for  Sin=y  =x  tan= |  |

You do with your partner.

Even Talk, Odd Write.

Use a reference angle to find the exact value of sine, cosine, and tangent of 330

|  |  |
| --- | --- |
| Find reference angle. |  |
| Find coordinates of reference angle. |  |
| Adjust signs for the quadrant.  Q1(+,+)  Q2(-,+)  Q3(-,-)  Q4(+,-) |  |
| Solve for  Sin=y  =x  tan= |  |

Closure:

Take a minute and think about the steps needed to find the exact value of sin150. How would you solve it using the unit circle? How would you solve it using a reference angle.

Talk with your partner about the two methods.

Be prepared to share with the class.