CSS: How can I set image size relative to parent height?

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I am trying to figure out how to re-size an image so that it keeps it ratio of width to height, but gets re-sized until the height of the image matches the height of the containing div. I have these images that are pretty large and long (screenshots), and I want to put them into a 200px width, 180px height div for display and without re-sizing the images manually. To make this look good, the sides of the image need to overflow and be hidden with the containing div. This is what I have so far:

http://jsfiddle.net/f9krj/2/

HTML

```
<a class="image_container" href="http://www.skintype.ca/assets/background-
x_large.jpg">
    <img src="http://www.skintype.ca/assets/background-x_large.jpg" alt="" />
</a>
```

CSS

```
a.image_container {
    background-color: #999;
    width: 200px;
    height: 180px;
    display: inline-block;
    overflow: hidden;
}
a.image_container img {
    width: 100%;
}
```

As you can see, there is grey color showing on the images parent container which should not be shown at all. In order for that container to be filled completely, the width needs to be overflowed equally on both sides. Is this possible? Is it also possible to account for an image that is also too tall?

`html` `image` `css`

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7 Answers

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Original Answer:

113

If you are ready to opt for CSS3, you can use css3 translate property. Resize based on whatever is bigger. If your height is bigger and width is smaller than container, width will be stretch to 100% and height will be trimmed from both side. Same goes for larger width as well.

Your need, **HTML:**

```
<div class="img-wrap">
  <img src="http://lorempixel.com/300/160/nature/" />
</div>
<div class="img-wrap">
  <img src="http://lorempixel.com/300/200/nature/" />
</div>
<div class="img-wrap">
  <img src="http://lorempixel.com/200/300/nature/" />
</div>
```
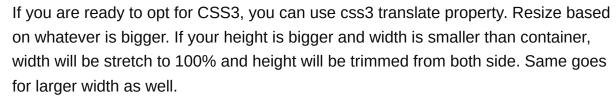
And **CSS:**

```
.img-wrap {
  width: 200px;
  height: 150px;
  position: relative;
  display: inline-block;
  overflow: hidden;
  margin: 0;
}

div > img {
  display: block;
  position: absolute;
  top: 50%;
  left: 50%;
  min-height: 100%;
```

```
    min-width: 100%;
    transform: translate(-50%, -50%);
  }
```

Voila! Working: http://jsfiddle.net/shekhardesigner/aYrhG/

Explanation

DIV is set to the `relative` position. This means all the child elements will get the starting coordinates (origins) from where this DIV starts.

The image is set as a BLOCK element, `min-width/height` both set to 100% means to resize the image no matter of its size to be the minimum of 100% of it's parent. `min` is the key. If by min-height, the image height exceeded the parent's height, no problem. It will look for if min-width and try to set the minimum height to be 100% of parents. Both goes vice-versa. This ensures there are no gaps around the div but image is always bit bigger and gets trimmed by `overflow:hidden;`

Now `image`, this is set to an `absolute` position with `left:50%` and `top:50%`. Means push the image 50% from the top and left making sure the origin is taken from DIV. Left/Top units are measured from the parent.

Magic moment:

```
transform: translate(-50%, -50%);
```

Now, this `translate` function of CSS3 `transform` property moves/repositions an element in question. This property deals with the applied element hence the values (x, y) OR (-50%, -50%) means to move the image negative left by 50% of image size and move to the negative top by 50% of image size.

Eg. if Image size was 200px × 150px, `transform:translate(-50%, -50%)` will calculated to translate(-100px, -75px). % unit helps when we have various size of image.

This is just a tricky way to figure out centroid of the image and the parent DIV and match them.
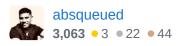
Apologies for taking too long to explain!

Resources to read more:

- https://developer.mozilla.org/en-US/docs/Web/CSS/transform-function/translate

- https://css-tricks.com/centering-css-complete-guide/

edited Sep 22, 2017 at 11:13

answered Oct 5, 2013 at 2:20

absqueued
3,063 ● 3 ● 22 ● 44

11   It works but I don't really get it. Someone mind to explain? – geckob Dec 16, 2015 at 7:01

14   This is CSS sorcery at its finest. – Liz Jun 24, 2017 at 21:16

Since it has yet to be explained at all: Can someone please explain this? Feel free to edit the answer. – anon Sep 20, 2017 at 23:08

15   This cut down the image, rather than doing resize. – PiyaModi Aug 16, 2018 at 1:00

Change your code:

```
a.image_container img {
    width: 100%;
}
```

To this:

```
a.image_container img {
    width: auto; // to maintain aspect ratio. You can use 100% if you don't
care about that
    height: 100%;
}
```

http://jsfiddle.net/f9krj/5/

57

edited Sep 21, 2016 at 22:55

answered Oct 5, 2013 at 2:02

Jacques
3,774 ● 2 ● 22 ● 45

This is the perfect solution. Thanks! It sets the height and width of an image according to a parent element, rather than cut down the image. Thanks again! – PiyaModi Aug 16, 2018 at 1:02

Use `max-width` property of CSS, like this :

```
img{
    max-width:100%;
}
```

25

edited May 27, 2018 at 12:51

answered Dec 27, 2016 at 16:55

Neuron
5,763 ● 5 ● 43 ● 62

UniCoder
3,235 ● 1 ● 32 ● 29

What if you have free width space, but you're restricted to a limited height by the parent?
— Normal Oct 16, 2022 at 5:05

For me the easiest way to do it without using position absolute, translate.

7

```html
<div class="img-container">
 <img src="yoururl" />
</div>
```

the CSS should look like this :

```css
.img-container {
 height:100px;
 width:100px;
 overflow:hidden;
}
.img-container > img {
width:100%;
height:100%;
object-fit:cover;
}
```

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answered Jan 9, 2023 at 0:33

idembele70
139 ● 2 ● 5

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you can use flex box for it.. this will solve your problem

5

```css
.image-parent
{
    height:33px;
    display:flex;
}
```

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answered Sep 20, 2020 at 17:52

Sayed M. Idrees
1,402 ● 17 ● 31

1   But the height is not auto after all, — Normal Oct 16, 2022 at 5:06

@Normal height is controlled by the width. — Sayed M. Idrees Oct 16, 2022 at 19:25
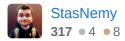
2

If you take [answer's](#) Shekhar K. Sharma, and it almost work, you need also add to your this `height: 1px;` or this `width: 1px;` for must work.

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answered Oct 5, 2019 at 9:48

StasNemy
317 ● 4 ● 8

1

If all your trying to do is fill the div this might help someone else, if aspect ratio is not important, is responsive.

```
.img-fill > img {
  min-height: 100%;
  min-width: 100%;
}
```

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answered Nov 27, 2020 at 20:52

Harry Bosh
3,790 ● 2 ● 40 ● 37