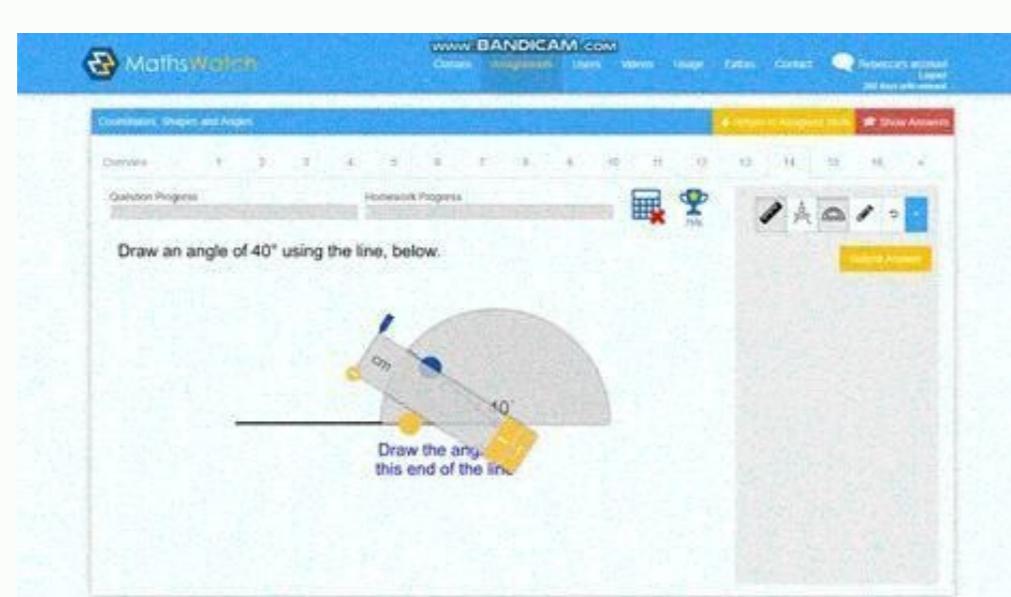


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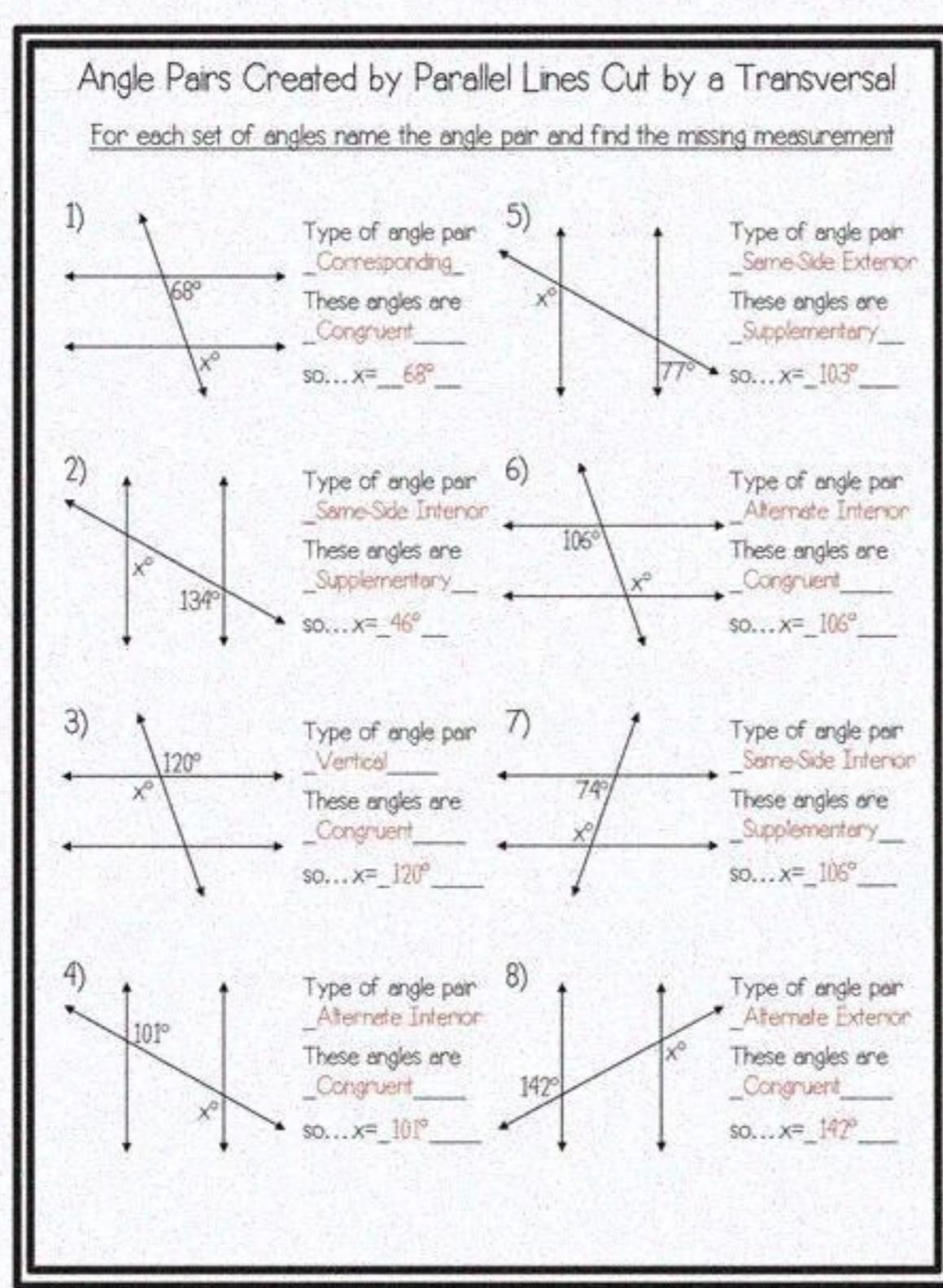
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Maths4everyone angles which form a straight line. Angles in parallel lines worksheet maths genie answers. What are math angles. Angles on parallel lines worksheet pdf. Maths4everyone angles in parallel lines.

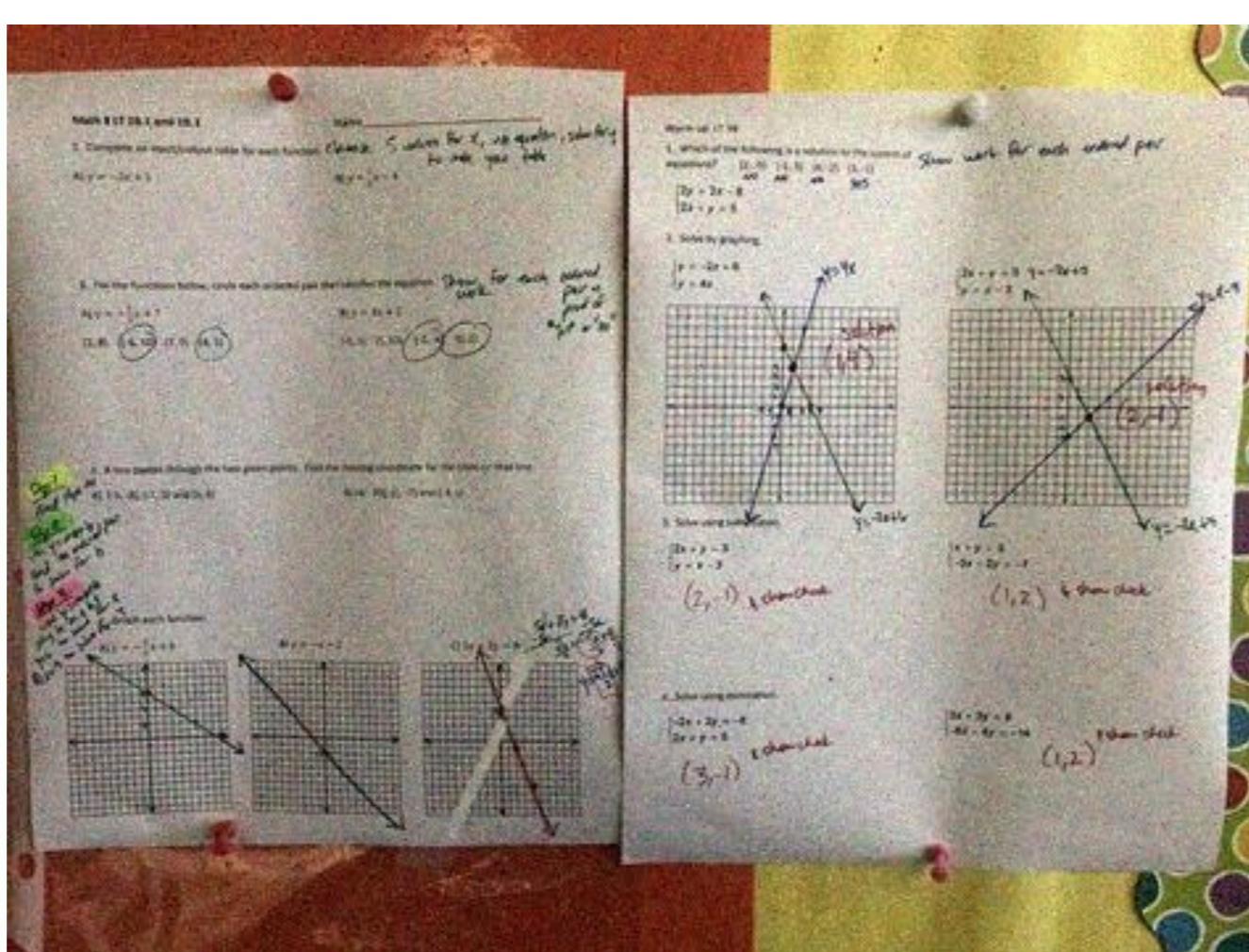
Alternate angles are the same, found in a Z-shape, sometimes called "Z-angles". Corresponding angles are also the same, found in an F-shape, and referred to as "F-angles". Vertically aligned angles are the same, often called "vertically opposite angles". Allied angles add up to 180 degrees, referred to as either "allied angles" or "interior angles". To find the angle marked x , use BD and EG being parallel lines. Start by using the fact that angles on a straight line add to 180 degrees. Specifically, $\angle EFC$ and $\angle CFG$ add up to make 180 degrees. This means we can calculate: $\angle CFG = 180 - 32 = 148$ degrees. Then, using corresponding angles, find that $\angle AHB = \angle FGH$, so $\angle x = 37$ degrees. Identify that $\angle PGH$ and $\angle GHC$ are alternate angles, then get $\angle GHC = 41$ degrees.



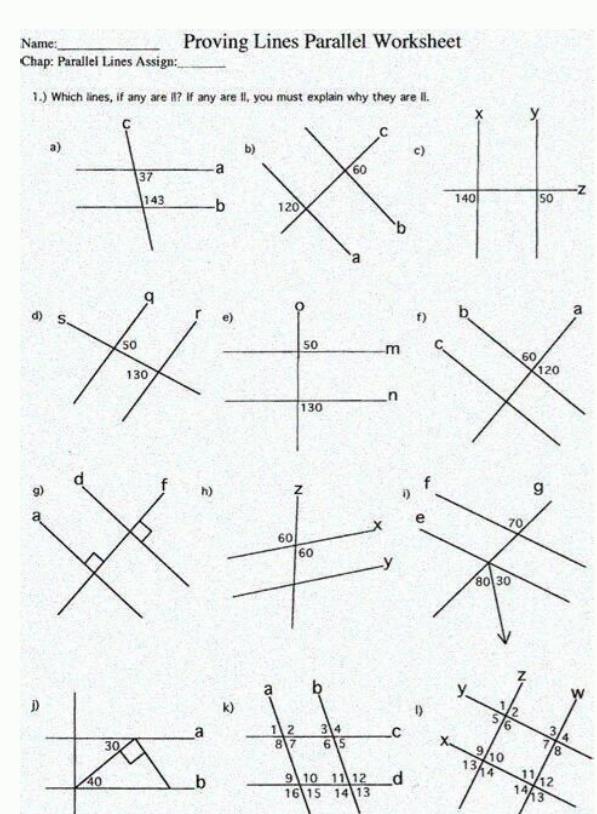
Vertically aligned angles are the same, often called "vertically opposite angles". Allied angles add up to 180 degrees, referred to as either "allied angles" or "interior angles". To find the angle marked x , use BD and EG being parallel lines. Start by using the fact that angles on a straight line add to 180 degrees. Specifically, $\angle EFC$ and $\angle CFG$ add up to make 180 degrees. This means we can calculate: $\angle CFG = 180 - 32 = 148$ degrees. Then, using corresponding angles, find that $\angle AHB = \angle FGH$, so $\angle x = 37$ degrees. Identify that $\angle PGH$ and $\angle GHC$ are alternate angles, then get $\angle GHC = 41$ degrees. Then use the fact that angles on a straight line sum to 180 degrees, $x = 180 - 41 = 139$ degrees. Using vertically opposite angles, find that $\angle EFC = 48$ degrees. Then, because angle EFC and angle BCA ($\angle x$) are corresponding angles, get $\angle BCA = x = 48$ degrees. Using corresponding angles, find that $\angle FGI = \angle CDG$, then get $\angle CDG = 121$ degrees. Then use the fact that angles on a straight line add to 180 degrees, and angles CDA and CDA are on a straight line, $\angle CDA = 180 - 121 = 59$ degrees. Finally, again using the fact that angles on a straight line add to 180 degrees, and angles CDA, BDE, and ADB (otherwise known as angle x) are on a straight line, get $x + 59 + 59 = 180$, so $x = 180 - 109 = 71$ degrees. Firstly, because angles BEF and EHJ are corresponding angles, get $\angle EHJ = 39$ degrees. Next, because angles EDH and DHG are alternate angles, get $\angle DHG = 65$ degrees. Considering angles DHG, DHE, and EHJ are part of a straight line, the sum of these angles equals 180 degrees. By applying this principle, we can calculate $\text{text}\{\angle DHE\}$ as $180 - 76 - 39 = 65$ degrees. Since angle DHE is vertically opposite to angle x , it follows that x also measures 65 degrees.



To find the angle marked x , use BD and EG being parallel lines. Start by using the fact that angles on a straight line add to 180 degrees.



Specifically, $\angle EFC$ and $\angle CFG$ add up to make 180 degrees. This means we can calculate: $\angle CFG = 180 - 32 = 148$ degrees. Now, looking at the diagram, angle $\angle CFG$ and the missing angle x are corresponding angles, so $x = 148$ degrees. Using corresponding angles, find that $\angle AHB = \angle FGH$, so $\angle x = 37$ degrees. Identify that $\angle FGH$ and $\angle GHC$ are alternate angles, then get $\angle GHC = 41$ degrees. Then use the fact that angles on a straight line sum to 180 degrees, $x = 180 - 41 = 139$ degrees. Using vertically opposite angles, find that $\angle EFC = 48$ degrees.



Start by using the fact that angles on a straight line add to 180 degrees. Specifically, $\angle EFC$ and $\angle CFG$ add up to make 180 degrees. This means we can calculate: $\angle CFG = 180 - 32 = 148$ degrees. Now, looking at the diagram, angle $\angle CFG$ and the missing angle x are corresponding angles, so $x = 148$ degrees. Using corresponding angles, find that $\angle AHB = \angle FGH$, so $\angle x = 37$ degrees. Identify that $\angle FGH$ and $\angle GHC$ are alternate angles, then get $\angle GHC = 41$ degrees. Then use the fact that angles on a straight line sum to 180 degrees, $x = 180 - 41 = 139$ degrees. Using vertically opposite angles, find that $\angle EFC = 48$ degrees. Then, because angle $\angle EFC$ and angle $\angle BCA$ ($\angle x$) are corresponding angles, get $\angle BCA = x = 48$ degrees. Using corresponding angles, find that $\angle FGJ = \angle CDG$, then get $\angle CDG = 121$ degrees. Then use the fact that angles on a straight line add to 180 degrees, and angles $\angle CDG$ and $\angle CDA$ are on a straight line, $\angle CDA = 180 - 121 = 59$ degrees. Finally, again using the fact that angles on a straight line add to 180 degrees, and angles $\angle DCA$, $\angle BDE$, and $\angle ADB$ (otherwise known as angle x) are on a straight line, get $x + 50 + 59 = 180$, so $x = 180 - 109 = 71$ degrees. Firstly, because angles $\angle BEF$ and $\angle EHJ$ are corresponding angles, get $\angle EHJ = 39$ degrees. Next, because angles $\angle EDH$ and $\angle DHG$ are alternate angles, get $\angle DHG = \dots$. Considering angles $\angle DHG$, $\angle DHE$, and $\angle EHJ$ are part of a straight line, the sum of these angles equals 180 degrees. By applying this principle, we can calculate $\angle DHE$ as $180 - 76 - 39 = 65$ degrees. Since angle $\angle DHE$ is vertically opposite to angle x , it follows that x also measures 65 degrees. While there might be alternative approaches to solving this problem, the key is to correctly apply angle facts, explain each step clearly, and arrive at a correct answer of 65 degrees. To verify your results, refer to Gold Standard Education's worksheets on corresponding angles and alternate angles, as well as drill questions provided for example problems.