Angles on a Straight Line

1. True or false? Both missing angles marked x are 130°.

A.

x $50°$

B.

$35°$ $15°$ x
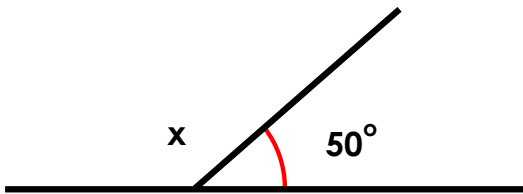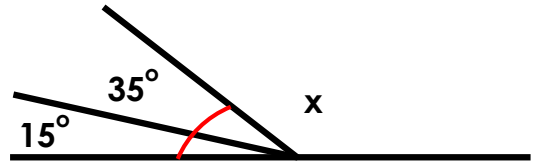
⭐D   *Angles not drawn to scale*   VF
HW/Ext

2. Which line has a missing angle of 35°?

A.

$135°$ x

B.

$65°$ x $80°$

C.

$65°$ x
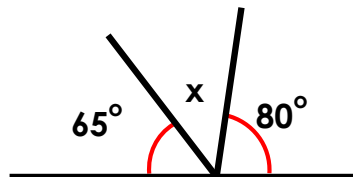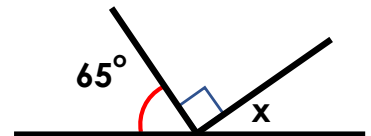
⭐D   *Angles not drawn to scale*   VF
HW/Ext

3. Paddy thinks that his missing angle is smaller than Kim's.

x $115°$

Paddy

$70°$ x $45°$

Kim

Is he correct? Explain your answer.

⭐D   *Angles not drawn to scale*   RPS
HW/Ext

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Homework/Extension – Angles on a Straight Line – Year 5 Developing
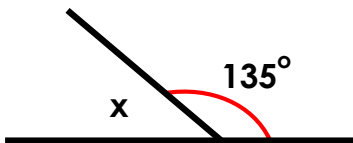
Angles on a Straight Line

4. True or false? Both missing angles marked x are 57°.

A.

124°
x

B.

82°
41°
x
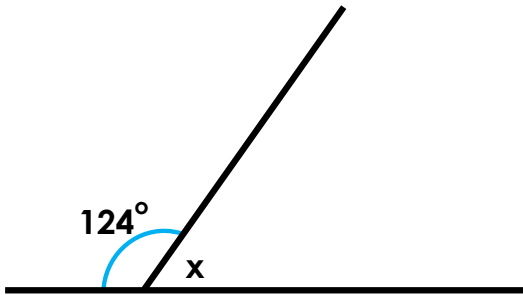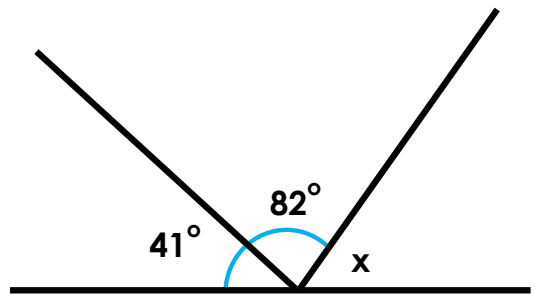
Angles not drawn to scale

VF
HW/Ext

5. Which line has a missing angle of 22°?

A.

125°
x

B.

86°   x   69°

C.

158°
x
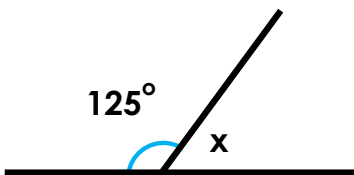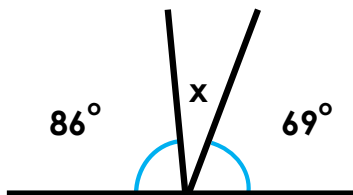
Angles not drawn to scale

VF
HW/Ext

6. Florence thinks that her missing angle is bigger than Freya's.

22°   x   29°

Florence

30°   x   45°
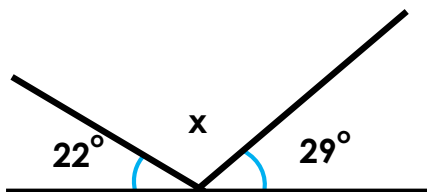
Freya
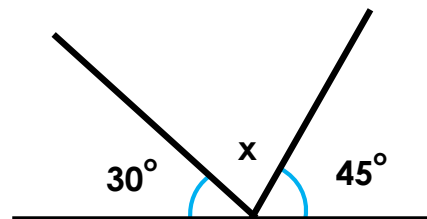
Is she correct? Explain your answer.

Angles not drawn to scale

RPS
HW/Ext

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Homework/Extension – Angles on a Straight Line – Year 5 Expected

Angles on a Straight Line

7. True or false? Both missing angles marked x are 32°.

A.

A right angle
plus 27°

31°   x

B.

x

$\frac{2}{3}$ of a right
angle

97°

8. Which line has a missing angle of 63°?

A.

A right
angle
minus 6°

x

69°

B.

A right
angle
plus $\frac{1}{10}$

x   19°

C.

x

$\frac{3}{10}$ of a right
angle
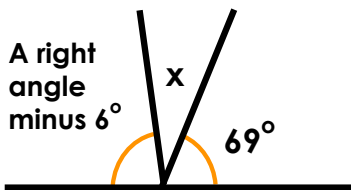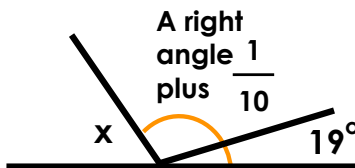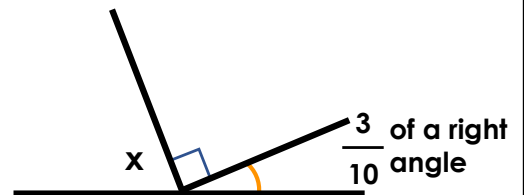
9. Betty thinks that her missing angle is half the size of Dan's missing angle.

A right
angle
minus $\frac{1}{5}$

x   63°

Betty

93°

A right
angle
minus 9 x 9

x
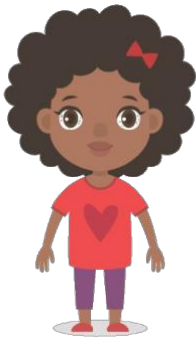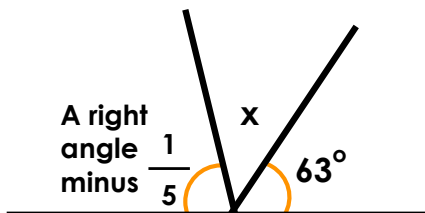
Dan

Is she correct? Explain your answer.

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Homework/Extension
Angles on a Straight Line

Developing
1. True.
2. Line B has a missing angle of 35°.
3. Paddy is incorrect as both he and Kim both have a missing angle of 65° as 180° – 115° = 65° and 180° – 70° = 110° and 110° – 45° = 65°.

Expected
4. False. The missing angle on line B is 57° but the missing angle on line A is 56°.
5. Line C has a missing angle of 22°.
6. Florence is correct. The missing angle on Florence's line = 129° as 22° + 29° = 51°. 180° – 51° = 129°. Whereas, Freya's missing angle = 105° as 30° + 45° = 75°. 180° – 75° = 105°.

Greater Depth
7. False. Line A has a missing angle of 32° but line B has a missing angle of 23°.
8. Line C has a missing angle of 63°.
9. Betty is incorrect. Her missing angle = 45° as 180° – 63° = 117°. A right angle – one fifth = 72° so 117° – 72° = 45° and Dan's missing angle is 78° as 180° – 93° = 87°. A right angle – 9 x 9 = 9° so 87° – 9° = 78°. Therefore, Betty's angle is not half the size of Dan's as if it was, it would be 39°.

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Homework/Extension – Angles on a Straight Line ANSWERS