Basic Angles and Shapes Practice #5
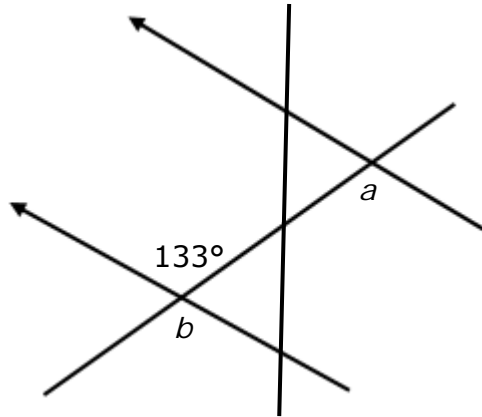
1.

Angle *a* = ...

Reason = ...

Angle *b* = ...

Reason = ...

2.

Angle *c* = ...

Reasons = ...

....
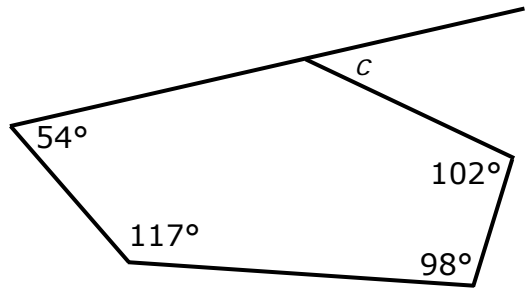
3.

Angle *d* = ...

Reason = ...

Angle *e* = ...

Reasons = ...

....
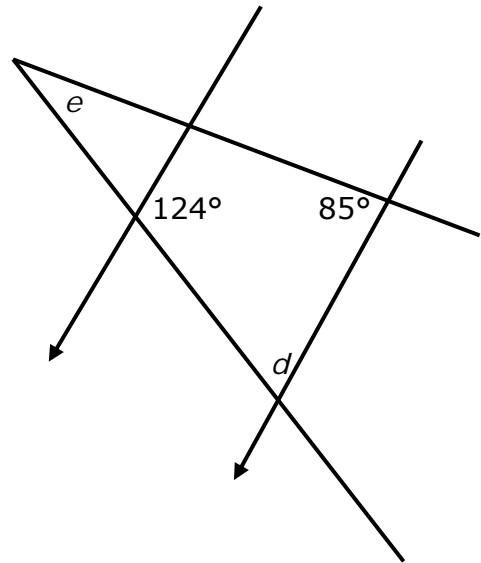
4.

Angle *f* = ...

Reasons = ...

....

....
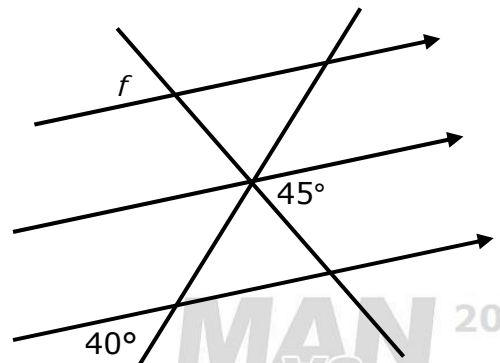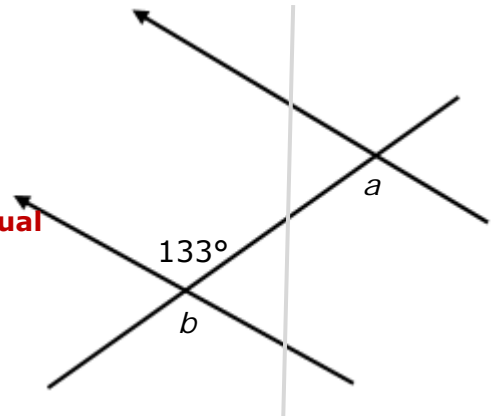
Answers: Basic Angles and Shapes Practice #5

1.

Angle *a* = **133°**

Reason = **Alternate angles on parallel lines are equal**

Angle *b* = **133°**

Reason = **Vertically opposite angles are equal**
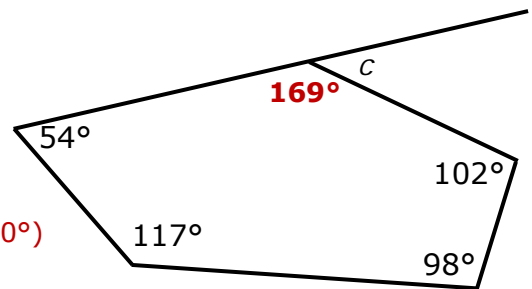
133°

a

b

2.

Angle *b* = **11°**

Reasons = **Interior angles add up to 540°** (3 × 180°)

Angles on a line add up to 180°

c

169°

54°

102°

117°

98°

3.
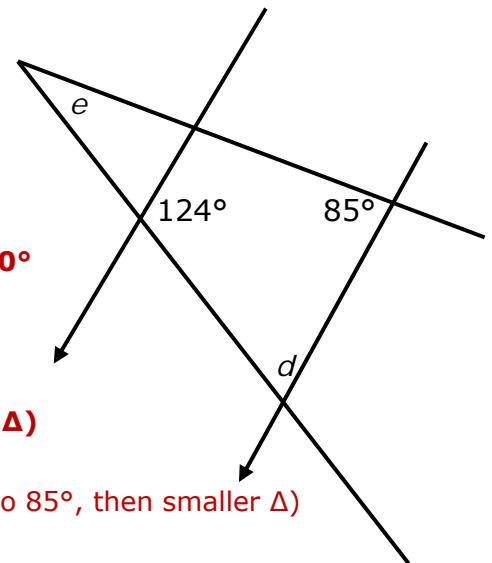
Angle *d* = **56°**

Reason = **co-interior (with 124°) on || add up to 180°**

Angle *e* = **39°**

Reason = **Angles in Δ add to 180° (using the bigger Δ)**

(or angles on a line with 124°, corresponding to 85°, then smaller Δ)

e

124°

85°

d

4.

Angle *f* = **45°**

Reasons = **Corresponding angles on || are equal**

Vertically opposite angles are equal

(or vert. opp. then corresponding etc)

f

45°

40°