Basic Shapes and Angles Practice #4

1.

Angle *a* = ...

Reason = ...

2.

Angle *b* = ...

Reasons = ...

....

55°   20°
a

b

118°
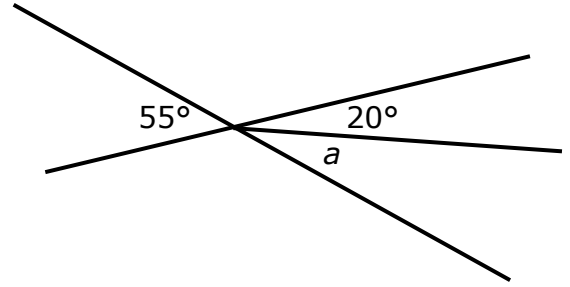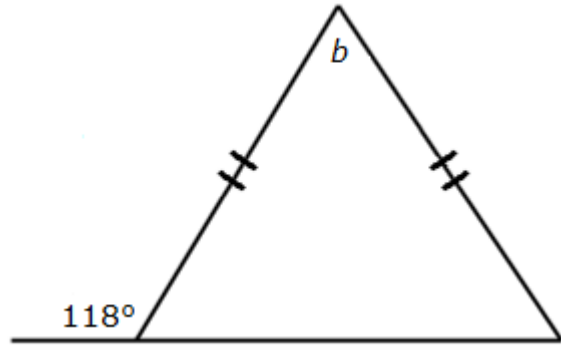
3.

Angle *c* = ...

Reason = ...

Angle *d* = ...

Reasons = ...

....

78°

59°

c   *d*
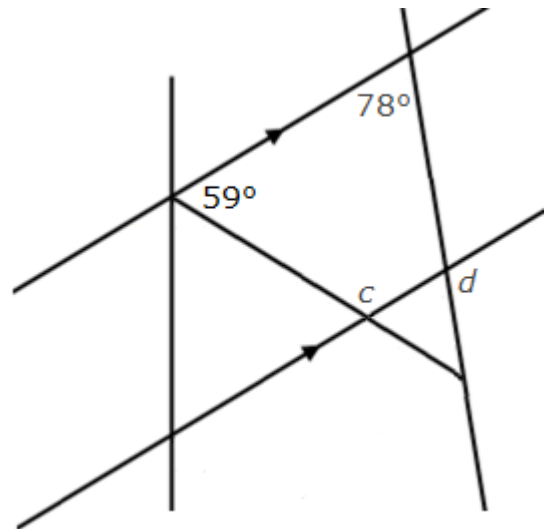
4.

Angle *e* = ...

Reasons = ...

....

Angle *f* = ...

Reasons = ...

....

e   *f*

112°

50°

65°
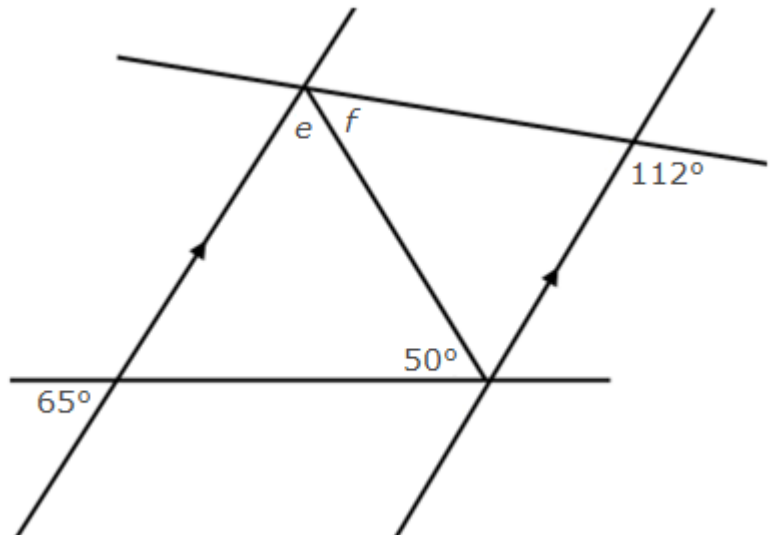
Answers: Basic Shapes and Angles Practice #4

1.

Angle *a* = **35°**

Reason = **vertically opposite are equal: *a*° + 20° = 55°**

55°   20°
a
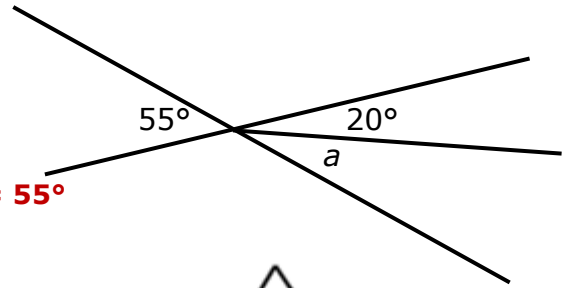
2.

Angle *b* = **56°**

Reasons = **62° as angles on a line = 180°**

Base angles isosceles Δ are equal

Angles in Δ = 180° : 62° + 62° + 56° = 180°
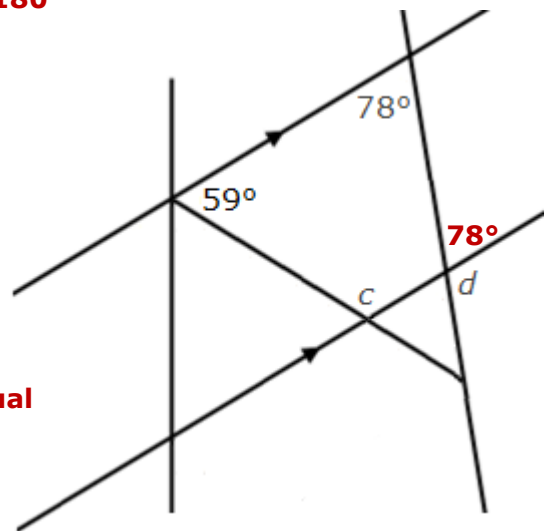
b

118° 62°   62°
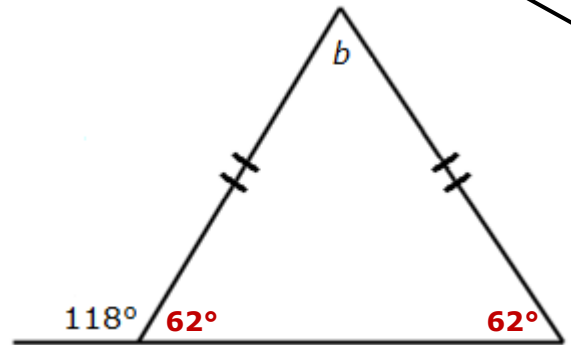
3.

Angle *c* = **121°**

Reason = **Co-interior on parallel lines add to 180°**

Angle *d* = **102°**

Reasons = **78° as alternate on parallel lines are equal**

Angles on line add to 180°

(<u>or</u> co-interior then vertically opposite, <u>or</u> corresponding and on line)

78°

59°

78°
c   *d*

4.

Angle *e* = **65°**

Reasons = **Vertically opposite are equal (to 65°)**

Angles in triangle add to 180°

Angle *f* = **47°**

Reasons = **Corresponding on parallel lines are equal,**
so *e* + *f* = 112°

_e_ = 65°, as above, so *f* = 112° − 65°

e *f*

112°

50°

65°