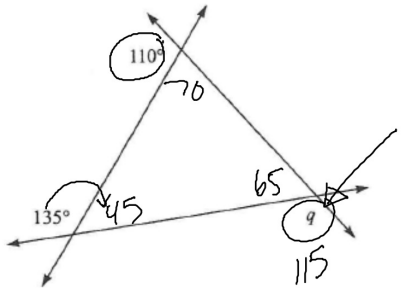
9. What is the value of $|4-x|$ if $x=7$?

A. ~~11~~
~~B. −3~~
C. 3
D. 11
~~E. 47~~

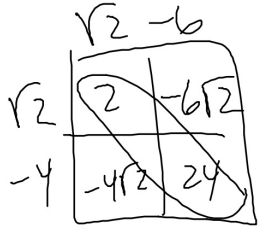
10. In the figure below, where the triangle is created by 3 lines that intersect at the angles indicated, the measure of angle q = ?



A. F. 45°
B. G. 65°
C. H. 70°
D. J. 110°
E. K. 115°

11. $(\sqrt{2}-6)(\sqrt{2}-4)=?$

A. $10\sqrt{2}-22$
B. $12\sqrt{2}+24$
C. $24-\sqrt{2}$
D. $26-10\sqrt{2}$
E. $10-11\sqrt{2}$



12. For all real numbers x and y, $(x-3y)^2=?$

F. ~~$2x-6y$~~
G. $x^2-6xy+9y^2$
~~H. x^2-9y^2~~
~~J. $x^2-9x^2y^2-9y^2$~~
K. $x^2+9xy+9y^2$

$(x-3y)(\ \ )$
$-3xy \quad -3xy$

13. If x is an odd integer greater than 5, what is the next greater odd integer in terms of x?

A. $x+2$
B. $x+3$
C. $x+5$
D. $3x$
E. x^2

14. Which of the following has the same graph as $x+8y=3$?

A. **F.** $3x+11y=6$
B. **G.** $2x+10y=5$
C. **H.** $3x+y=8$
D. **J.** $3x+24y=9$
E. **K.** $x-8y=-3$

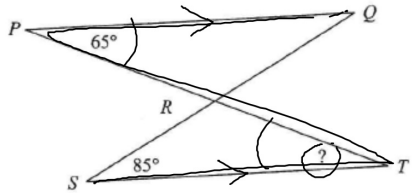
$2(x+6y=9)$
$2x+7y=7$

15. Anne is 3 times as old as Kyle. If their combined age is 24, how old is Anne?

A. 24
B. 18
C. 12
D. 9
E. 6

$A=3K$
$A+K=24$
$3K+K=24$
$4K=24$
$K=6$

16. In the figure below, the 2 intersecting lines QS and PT form triangles PRQ and SRT. Lines PQ and ST are parallel. If angle P is 65° and angle S is 85°, what is the measure of angle T?



A. **F.** 45°
B. **G.** 55°
C. **H.** 65°
D. **J.** 75°
E. **K.** 85°

17. Carrie has \$7 less than does her brother, Steve, who has d dollars. Carrie does not spend any money and earns \$3. Which of the following is an expression for the amount of money, in dollars, that Carrie has?

A. $(d-7)+2$
B. $d+4$
C. $d-(7+3)$
D. $d-4$
E. $d-7$

$C = S - 7 + 3$

18. If $0.2a+1.8=a-2.2$, then $a=?$

A. F. 4
B. G. 5
C. H. 8
D. J. 12
E. K. 20

$-.2a \quad -.2a$

$1.8 = .8a - 2.2$

$+2.2 \quad +2.2$

$4 = .8a$

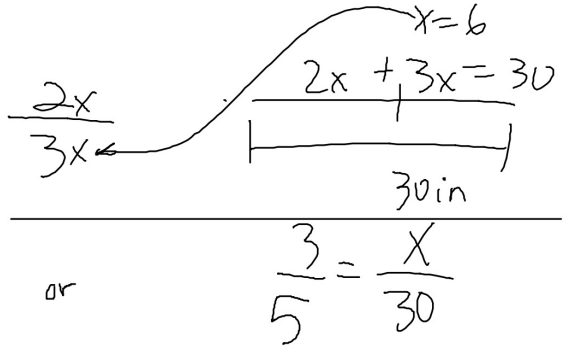
19. Of the following, which is the smallest integer, x, satisfying the condition that $-\sqrt{8}+x$ is negative?

A. 2
B. 3
C. 4
D. 5
E. 6

$-2.\ldots + 0$

20. Jennifer cut a ribbon 30 inches long into 2 pieces. The ratio of the lengths of the 2 pieces is 2:3. What is the length, to the nearest inch, of the longer piece?

A. F. 5
B. G. 6
C. H. 12
D. J. 15
E. K. 18



or $\frac{3}{5} = \frac{x}{30}$