

Warm-up 3

51) The red and orange are $\frac{1}{3}$ of the cup. Since there's 5 red and 7 orange, then $12 \times 3 = 36$

52) Round each to 0.5 to get $5 \times 0.5 = 2.5$. Then add/subtract to compensate:

-0.01	}	+0.02
+0.03		
+0.05		
-0.03		
-0.02		

Then add 0.02 to 2.5 to get 2.52

53) $1 \times 4 \times 3 \times 2 = 24$

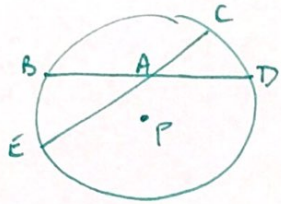
↑	↑	↑	↑	
Jeans	shirt	Sweater	scarf	

54) $\left(\frac{3}{4}\right)(8) + (4)(4) = 22 \text{ min}$

*
55) $27^2 - 23^2 = (27 + 23)(27 - 23)$
 $= (50)(4)$
 $= 200$

Warm-up 3

- (56) Chord: Line from one point on the circle to another
Rule for Chords:



$$(BA)(AD) = (EA)(AC)$$

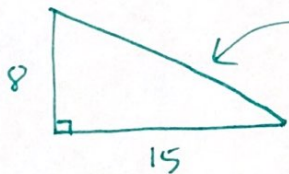
So...

$$(3)(6) = (8)(AE)$$

$$AE = 2\frac{1}{4}$$

- (57) 3 days: Tuesday, Thursday, Friday

- (58) Total trip = $8 + 8 + 7 = 23$ miles
Shortened trip:



Pythagorean Theorem:

$$8^2 + 15^2 = c^2$$

$$\sqrt{289} = c$$

$$17 = c$$

$$\text{Savings: } 23 - 17 = \underline{6 \text{ miles}}$$

- (59) Trillion = 10^{12} . $21.5 \times 10^{12} = 2.15 \times 10^{13}$. 13

- (60) Every vertex (corner) can connect to 14 other vertices: 17×14 .
But divide by two since each ~~diagonal~~ diagonal connects two vertices: $\frac{17 \times 14}{2} = \underline{119}$