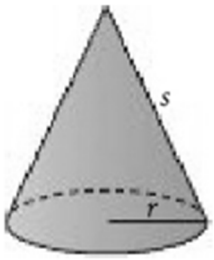
DAY 5 – Mix of Factoring

1. Factor each of the following fully.

a. $-x^2 + 7x - 12$	b. $3x^2 - 3$	c. $32x^2 - 200$
d. $48x^2 - 27y^2$	e. $3a^2 - 36a - 39$	f. $5x^2 + 10x + 5$
g. $4x^2 + 28x + 24$	h. $8e^2 - 50$	i. $2y^2 - 6y - 8$

2. The surface area of a cone is given by the formula $SA = \pi r^2 + \pi rs$.



   a. Factor the expression for the surface area.

   b. Five cones all have a radius of 20 cm. Their slant height, *s*, is given in the table. Find the surface area of each cone.

Slant Height (cm)
40
45
50
55
60

   c. A cone has a slant height that is 3 times its radius. Use your answer to part (a) to write a simpler form of the expression for the surface area for this cone.